

Entrepreneurship

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Entrepreneurship

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Introduction

Entrepreneurship is an important and, until fairly recently, sadly neglected subject. The literature is extremely diffuse. This book is intended to provide a basic resource, not only for libraries, but for all those engaged with the subject as teachers, students or practitioners. The book should be accessible to anyone with a reasonable grasp of basic economic principles. It attempts to synthesize some of the best literature on the subject. It contains the thinking of some of the most profound scholars in philosophy, sociology and history, as well as economics.

The readings are organized into three main sections, dealing respectively with Economic Theory, Empirical Evidence on Firm and Industry, and Culture and Economic Development. This structure is reflected in this introductory essay, which provides a commentary on the contents of the book.

The main omission is a section on government policy. Despite its topical relevance, the appraisal of specific policies would occupy a very large amount of space because international differences in institutional arrangements mean that too many separate studies on different countries would have to be included. The reader can readily infer, however – particularly from the empirical papers – that according to recent research special incentives and interventions to promote small firm start-ups, of the kind currently favoured by many governments, are unlikely to stimulate entrepreneurship to any significant extent. The literature suggests that improvements in basic education (both moral and scientific), coupled with wide-ranging fiscal reforms are likely to be more effective than special ‘small firm’ policies. These are only indications, however, and definite conclusions will have to wait on the results of future research.

Economic Theory

Four main approaches to entrepreneurship can be identified in economic theory. The first focuses on the factor distribution of income. It seeks to identify a factor for which profit is the reward. The second emphasizes market processes. It is a dynamic approach which emerges from a critique of the static Walrasian concept of perfect competition. Thirdly, there is the heroic Schumpeterian vision of the entrepreneur as an innovator whose ‘creative destruction’ regulates growth and fluctuation in the economy. The final approach concerns the relation between the entrepreneur and the firm. It focuses on the entrepreneur as decision-maker – in particular, his motivation and his perception of the environment. In this final approach, special attention is given to small and newly-founded firms, and to key issues of strategy formulation, building market share, managing growth through diversification, and so on.

Risk and uncertainty

Profit is defined as the surplus which remains once the wages of labour, the rent of land and the interest on capital have been paid out of revenue. In a static competitive economy anyone can purchase factors and combine them to generate output. With free entry and exit, and no economies of scale, competition between producers maintains long run economic profit at zero. There is simply no need for an entrepreneur.

One way of introducing entrepreneurship is to relax the assumption of a static environment. This is, however, of little consequence if the environment varies in a simple deterministic – and therefore quite predictable – manner. It does, however, become significant if the environment is unpredictable because this introduces elements of risk and uncertainty. Cantillon was the first economist to emphasize the significance of uncertainty. He argued that the speculative middleman, who buys in order to resell, cannot know for certain the market conditions prevailing at a later date. Yet the contract of purchase assures the seller of a fixed return independent of what the middleman can subsequently resell the commodity for. The assured nature of the contractual payment thus makes the middleman a specialized bearer of risk. The same point applies, of course, to a producer who incurs a non-recoverable set-up cost before he has been able to contract forward for the disposal of subsequent output; he is not merely a manager of production but also a specialized bearer of risk.

Cantillon's analysis of the middleman suggests that most economic agents can be divided into two groups: those who receive fixed incomes, and those who contract to pay these incomes even though their own incomes are uncertain. An important reason why these incomes are uncertain is that those living on fixed incomes, and indeed those living on variable incomes too, prefer to purchase goods in small amounts as and when they need them, rather than purchase according to a stable and predictable routine. Cantillon identifies those who live on uncertain incomes as the entrepreneurs whilst those who live on fixed incomes are either literally or metaphorically their employees.

Frank Knight refined this idea by distinguishing between risk and uncertainty. Risks, according to Knight, relate to recurrent situations in which, by repeated observation, it is possible to estimate the relative frequencies with which different outcomes will arise. Overall risk can be reduced by pooling risks which are imperfectly correlated. Indeed, according to Knight, the evolution of the joint-stock corporation can be understood in precisely these terms.

Knight argues that it is not measurable risk but unmeasurable uncertainty that constitutes the basis for pure profit. Uncertainty pertains to unique situations which have no precedent, and no analogy by which the probabilities of alternative outcomes can be assessed. Another way of putting this is to say that risks are unlikely to generate surprises which lead to a significant revaluation of the firm. The regular recurrence of a particular type of risky situation has a measurable effect on the volatility of the firm's profit stream, which can be incorporated, through a risk premium, into its valuation. So long as the underlying fundamentals do not change, there is no reason why the value of the firm should change either. The resolution of

an uncertain situation may lead to revaluation of the firm, however, and so for the owner of the firm the unanticipated shock may provide a windfall gain which constitutes pure profit.

The ideas of Cantillon and Knight have been formalized by Kihlstrom and Laffont. Their analysis of the allocation of production risk in a competitive economy illustrates one of the great strengths of modern theory. By abstracting from institutional detail their model becomes amenable to rigorous mathematical analysis. It shows how the equilibrium distribution of income between entrepreneurs and their employees is governed by their relative degree of risk aversion, the marginal productivity schedule of the employees, and the magnitude of technological risk in production. Comparative static analysis shows how a change in technology which increases risks raises the risk premium paid by the employees to the entrepreneurs, and so reduces wages and raises profits.

The analysis also highlights several weaknesses of conventional theorizing. First, the approach is essentially reductionist because, despite the allusion to Knight, his distinction between risk and uncertainty is ignored, and all uncertainty is reduced to measurable risk in order to make the model tractable. Secondly, some crucial aspects of entrepreneurship are assumed away without any justification being given. Thus while in both Cantillon and Knight the most important uncertainties relate to future price levels in non-Walrasian markets, according to Kihlstrom and Laffont all uncertainties are technological and all markets Walrasian. Finally, some issues are simply fudged. Thus the entrepreneur, besides bearing risk, also owns an indivisible fixed factor which is necessary for the operation of a firm, but whose rationale is never properly explained. The provision of the fixed factor is united with risk-bearing because there is no equity market in the model that would permit the separation of these functions. Although the authors have considered such issues elsewhere, it is evident that the results of their model are highly sensitive to assumptions which have only an indirect bearing on the essential features of entrepreneurial activity.

Market process

One essential feature is the entrepreneur's role as an intermediary in a dynamic market process. Hayek argues that the market system is indispensable in motivating people to supply the kind of information that is needed to help decision-makers economize on the use of scarce resources. Markets provide decision-makers with price quotations which can be used to measure opportunity costs. In a competitive market the quotation corresponds to an average of the subjective valuations of the commodity by everyone in the society. The weights used in this average will, however, vary according to the distribution of personal income.

When information is scarce, different people are likely to hold different beliefs. Some people are confident enough to believe that other people's beliefs are wrong and theirs are right. They are also likely to believe that other people will eventually come round to their view, and that resources will be revalued as a result. This motivates people to intervene in markets for purely speculative purposes. But by intervening they tend to drive the price marginally against themselves, so that the

current price begins to reflect what they believe they know about the future. The opinions of these confident individuals then become heavily weighted in the pricing process. By influencing price, these confident individuals indirectly contribute what they think they know to other people's perceptions of opportunity costs.

If several people hold the same opinion then their competition to purchase undervalued resources will drive up the price to eliminate any prospect of profit. All the benefit of the new information will accrue to the initial owners of the resources. To appropriate the full value from new information a temporary monopoly is required. According to Kirzner, it is the most alert individuals who will appropriate this profit. It is the prospect of monopoly profits which motivates people to search actively for new information, and so sustains the adaptive and innovative capacities of the economy.

Buying up undervalued resources to resell later is a form of intertemporal arbitrage. Arbitrage can also be effected over space, and between different types of goods. Arbitrage over space is exemplified by a merchant who transports goods between local markets in response to transitory price differentials. Arbitrage between goods is exemplified by the producer who transforms a low-value combination of inputs into a high-value output.

Kirzner's theory of the entrepreneur is commonly presented as part of a wider package of ideas generated by the renaissance of Austrian economics. A key element in Austrian thinking is the repudiation of objectivity in social science. All knowledge is provisional and subjective. The closest approximation to objective information is a strongly held belief that is common to everyone. Some approximation to objectivity is necessary, however, for certain steps in Kirzner's analysis to be valid. The efficiency of the market system, for example, clearly depends upon common perceptions of prices by transactors. If personal bias in perception distorted price communication then even within a market system anarchy would prevail.

Repudiation of objectivity is linked to the rejection of measurement, and through this to a rejection of the Popperian or 'positivist' methodology of attempting to falsify hypotheses by recourse to data. Thus while Austrian theory shares with conventional neoclassical theory a commitment to methodological individualism and the rationality of human action, it does not attempt to generate testable hypotheses. Rather it aims to show the impracticality of solving economic problems through centralized planning and the social ownership of capital. The centralized socialist approach is impractical because it fails to provide incentives for the collection and proper use of information and because the problems of motivating employees within a planning unit are insuperable.

Innovation

Schumpeter's view of the entrepreneur as innovator has widespread appeal. His early work, which highlights the romantic and visionary aspects of business, appeals to artists and individualists, whilst his later work appeals to scientists and collectivists because of its claim that innovation can be effectively programmed and coordinated within a large organization. His emphasis on the special psychology of the innovator,

and his vision of how capitalism stimulates 'creative destruction', give his work a social and historical dimension which is lacking in most other theories of the entrepreneur.

Schumpeter's distinction between invention and innovation and his relation of innovation to credit creation permit his theory to integrate issues as diverse as long run economic development, business cycles, market structure and the growth of the firm. Because of its visionary nature, however, it is difficult to capture Schumpeter's analysis within formal models. Several writers have attempted this, however; some have siezed upon the Darwinian flavour of Schumpeter's work, in order to embed Schumpeter's analysis within an evolutionary approach to the subject (see Nelson and Winter).

From a Darwinian perspective, innovation is a source of potential diversity analogous to genetic variation. In one version of this analogy, the variation occurs within a population of firms when one of them adopts a new management practice or a new technology. The innovating firm then competes with established firms in a competitive struggle for survival. The industry constitutes an environmental niche in which the struggle goes on. Imitation constitutes a social mechanism by which the characteristics of the successful innovation are transmitted to rival firms. In the long run only the fittest firms in the industry – those using best practice techniques – earn a normal rate of profit and so survive.

The analogy can be further extended by noting that many inventions are generated by synthesizing ideas from previous innovations, rather like the way that genetic materials are synthesized from others during reproduction. Like all analogies, however, the evolutionary perspective becomes dangerous if pursued too far. The psychology of innovation involves a deliberate act of anticipation – an imagination of potential future consequences – which is lacking in the natural world. Entrepreneurs have a choice of what to innovate and, indeed, whether to innovate at all, and in many cases it is by no means obvious what this choice should be. Some people are better than others at anticipating the response of a complex environment, and it is people with this ability that are likely, in the long run, to be most successful. These people can transmit their successful practices to future generations by training their successors within the firm. The firm is an institution that can outlive any individual entrepreneur and thereby perpetuate his ideas without recourse to genetic mechanisms (see below). Whilst competition between innovators may have Darwinian aspects, therefore, the innovation decision itself presents the entrepreneur with opportunities for deliberate choice and for institution-building which are entirely missing from the Darwinian picture.

The entrepreneur and the firm

One of the most unsatisfactory aspects of entrepreneurial theory is its failure to distinguish properly between the entrepreneur and the firm. For example, until recent work by Reekie (1979), Ricketts (1987) and others, Austrian economists entirely fudged this issue. Austrians' aversion to planning in general means that they have failed to appreciate the obvious advantages of planning within the firm. These

advantages stem from the avoidance of transaction costs in external markets, and are considered in more detail later.

Writers who focus on the role of the firm as an employer of labour tend to see the key role of the entrepreneur as supervision. Indeed, in contrast to early French writers such as Say (1803), who accorded the entrepreneur an active role in the promotion of ventures, early English writers such as Mill tended to identify the entrepreneur exclusively with this supervisory role. On this view, the size of the firm is governed chiefly by the supervisor's optimal span of control.

Marshall, by emphasizing management rather than merely supervision, widened the scope of analysis, and aligned it more closely with subsequent thinking which, following Coase (1937), regards the key aspect of the firm as the supercession of the market. Unfortunately, however, Marshall attempts to integrate his analysis into a static theory of income distribution by reducing entrepreneurship to a fourth factor of production. By implicitly treating entrepreneurship as a homogeneous factor service traded in a competitive market Marshall overlooks some of its most distinguishing characteristics.

A common mistake in the literature is to suppose that there can only be one entrepreneur per firm. This view is apparent not only in Marshall and Mill but in many business biographies, in which the operations of the firm are regarded merely as an extension of the personality of its founder. This tradition lives on today in the practice of applying entrepreneurial theory only to the 'entrepreneurial firm' in which a single owner-manager appears to be in absolute control (see below).

Postulating a single entrepreneur per firm creates an artificial problem, namely of deciding who exactly is the entrepreneur. The answer may be fairly obvious in the case of an owner-manager, but it is not so in the case of a large diversified corporation in which ownership and control are divorced. The difficulties this can entail are well illustrated by Knight's attempt to apply his theory of the entrepreneur to the large corporation.

As already noted, Knight argues that uncertainty-bearing is the true entrepreneurial function and that this is effected by the owner of the firm who receives the residual income. According to Knight, responsibility for the financial consequences of a decision can never, in an efficient system, be separated from responsibility for taking the decision. Since in a large corporation there are many owners, these owners must share not only in the financial consequences but also in the decision-making. The difficulty this creates – namely that possibly thousands of shareholders participate in decisions – is handled by Knight by arguing that management is a fairly routine activity. The really crucial decision concerns the selection of a chief executive who, if he is competent, will then select competent junior managers who will run the entire operation efficiently.

This argument fudges the issue of stockholder unanimity in the selection of the chief executive. But, quite apart from this, it is simply incompatible with the facts. The management of a firm is far less routine, and far more judgemental, than this picture suggests. The chief executive requires a reputation for integrity and good judgement, and he will be looking for similar qualities in the assistants he appoints. His reputation is an asset which he places at risk when he takes responsibility for

decisions. It is this reputation that encourages shareholders to delegate decisions to him, confident in both his intrinsic personal qualities and in the fact that he knows that his own future salary earning power depends on maintaining the reputation he has acquired. Thus, contrary to what Knight asserts, reputation mechanisms allow a separation between decision making on the one hand and shareholders' financial responsibilities on the other. Delegation of decisions from shareholders to managers allows entrepreneurship to be shared; moreover, if it is distributed more to one group than another, then it is surely managers that take the larger share.

The view that the entrepreneurial role is unitary derives some support from the argument of Kaldor (1934, and also paper 9), which says that if the overall strategy of the firm is to be consistent then it must ultimately pass through a single 'brain'. But as Charles Babbage (1832) noted over 150 years ago, a division of labour in thought can be effected in decision-making, so that different aspects of a decision can be delegated to different people. If each of these people has genuine discretion then their decisions can affect the strategy of the firm in a material way. Thus the delegation of decisions from shareholders to a chief executive can be repeated within the organization, as the chief executive resolves his own problems into sub-problems which are delegated progressively further down the hierarchy. Of course, the chief executive who reconciles and synthesizes the delegates' decisions has the most important role. But nevertheless entrepreneurial decision-making is still an activity which can, in principle, permeate the whole organization.

Another problem with Kaldor's view is that it does not really explain what the firm is doing in the first place. It tends to take the existence of the firm as self-evident, and to explain the role of the entrepreneur in terms of the need to manage the firm in a particular way. An alternative approach is to take entrepreneurship as the primary concept and explain the creation of the firm as a deliberate and rational response to a problem encountered by the entrepreneur.

I have developed this approach elsewhere (paper 12). The entrepreneur, it is claimed, has superior judgement, which means that he can handle complex and ill-defined problems better than other people. No-one can be certain that their judgement is better than other people's, because other people may know things that they do not, but confident individuals may nevertheless act as if they had such assurance. The simplest example is of someone who believes that they possess relevant information not available to other people. The firm is then developed by this individual as an institution for reallocating resources in the more efficient manner suggested by this information. Transaction costs in external markets make it easier for the entrepreneur to exploit the information himself rather than to license it, and to exploit it within an institution rather than purely through arbitraging in arm's length trade.

The firm is not only a device for exploiting information but for gathering it too. Information can be used to test between alternative hypotheses concerning the state of the environment, prior to submitting the hypotheses to the ultimate test of whether they provide profitable strategies in the market place. The capacity of the firm to generate a feedback loop by monitoring the consequences of managerial decisions makes it possible to institutionalize the learning process (paper 13). Good internal

communications within the firm allow it to function as an open-learning system, whereby the public good properties of information are exploited to allow all employees to draw their own inferences from information collected by the firm. The firm evolves into a social unit, in which decisions are delegated through an intellectual division of labour. Information fed back from the environment is disseminated widely as an internal public good. Free access to this information allows everyone to take entrepreneurial decisions effectively, wherever they have the authority and the confidence to do so.

Empirical Evidence on Firm and Industry

The theoretical confusion that prevails on the relation between the firm and the entrepreneur is reflected in the empirical literature. Entrepreneurship, it was suggested above, is a general phenomenon, reflected in the superior decision-making abilities of certain individuals. The empirical literature, however, takes a very narrow view of the field in which such abilities are revealed. It concentrates mainly upon *market entry through innovation effected by new small owner-managed firms*.

The emphasis on new firm formation directs attention to the occupational choice between self-employment and ordinary employment (see papers 14 and 15) and, to a lesser extent, between self-employment, unemployment and early retirement. The obvious way to analyse this choice is through the Cantillon-Knight theory that self-employment is inherently more risky because the self-employed person is contractually committed to uncertainty-bearing whereas the employee is not. The emphasis on market entry relates entrepreneurship to the question of barriers to entry and to changes in industrial concentration over time. Do macroeconomic prospects affect market entry, for example, by discouraging business start-ups at the onset of depression (see paper 16)? Is there any evidence that small firms face greater barriers to entry, or are more susceptible to cyclical influences (see paper 17)?

The emphasis on innovation means that Schumpeterian issues concerning the relation between size of firm, R & D expenditure and innovation are very much to the fore. Are small firms more innovative than large firms, and are the innovations they make in some sense the more fundamental ones (see paper 18)? Does the extremely speculative nature of high-technology research mean that small firms are heavily penalized by their limited access to capital markets; are their entrepreneurs more dependent, as a result, on borrowing from family and friends (see paper 19)? Finally, to what extent can innovative individuals obtain financial backing from their own employers rather than have to go independent to develop their ideas; in other words, is 'intrapreneurship' within the large firm an adequate substitute for small firm entry in high-technology industries (see paper 20)?

It would be premature to claim that definite answers can be given to questions of this kind. Indeed, some of the questions about the relative performance of large and small firms seem a little naive. For if theory is correct in suggesting that firms develop as instruments of the entrepreneur then each firm presumably develops to a scale which reflects the needs, and the capacities of its entrepreneur(s); thus there is no

reason to believe that, in general, either large firms or small firms will perform better than the others. Indeed, to the extent that capital markets are efficient, any bias in favour of large firms will lead to small firms being swallowed up by acquisition or merger, whilst any bias in favour of small firms will lead to asset-stripping or management buy-outs. This suggests that if firms of different sizes are able to survive then, in the absence of market distortions, their performance will be roughly equivalent.

So far it has been implicitly assumed that firms of different sizes are to be regarded as competitors. There is, however, considerable evidence of a symbiotic relation between large and small firms; in many cases they are complements rather than substitutes, and collaborators rather than competitors. Many small firms begin life as subcontractors for larger firms, specializing in small-batch production of non-standard items required at short notice. The large firm frequently controls the small firm's marketing and distribution. Rivalry only develops once the small firm grows to a point where it can cut out the intermediating or 'merchant' activity of its larger partner. As the Emilian model shows (see paper 21), a large firm may be the hub of many such relationships within a locality. Relationships of this kind can arise naturally and harmoniously when intrapreneurs of the kind described in paper 20 move to an 'arm's length' contractual relation with their employer.

Previous employment experience with the client firm can be invaluable in developing entrepreneurial skills. Self-employed people with previous experience of their industry perform, on average, better than do outsiders. There is evidence that medium-size firms are better than very large firms at incubating relevant skills (see paper 22). Large capital-intensive continuous-flow plants relying on impersonal hierarchical control of semi-skilled labour do not encourage the kind of flexible thinking required of the entrepreneur. This seems to be one reason why workers made redundant by the closure of large plants appear to have less success in developing independent businesses than those who voluntarily quit smaller firms where they have enjoyed more responsibility. Such effects are, however, difficult to disentangle from the effects of the age, educational background and personal wealth of those involved, and from the general depression in a locality in which major plant closures have occurred.

The symbiotic relations described above often work most effectively over short distances. They rely upon informal contracts which are promoted by face-to-face communication. A successful large firm can therefore generate significant economies of agglomeration. Small firms are attracted to its locality through the selective immigration of enterprising people from more depressed areas. Such effects are strengthened by the 'invisible infrastructure' of the locality – good research and educational establishments and the absence of political interference, for example. The 'Silicon Valley' phenomenon suggests that such effects are particularly important in the high-technology field. There are also important historical precedents from the time of the first industrial revolution. It has been alleged by Myrdal (1957) and others that the combination of economies of agglomeration and selective migration generates widening regional disparities through a process of cumulation causation. There is certainly convincing evidence that regional differences in entrepreneurship help to generate spatial inequalities in employment, income and growth (see paper 23).