ENTERPRISE DEVELOPMENT AND INNOVATION

John A. Murray*

Introduction

This collection of papers represents a milestone in the development of our understanding of enterprise and innovation in Ireland. Enterprise development has been used in Ireland as a title to signify a concern with the creation and management of new ventures, and particularly growth-oriented new ventures. The title was first used in the creation of a centre of teaching and research activity in the Faculty of Commerce at University College Dublin and simultaneously as a name for the newly created Enterprise Development Programme of the Industrial Development Authority in 1978.

The intention at University College Dublin was to signify, through the use of the title enterprise development, that research and teaching would focus on the processes by which new 'growth-oriented' ventures are created and by which they evolve into medium and large organisations. This was seen as a necessary response to the urgent need for Irish industrial development to be more soundly based in indigenous enterprise, but especially in enterprise that had the potential to create significant wealth through the exploitation of international markets and based on the use of knowledge and technology as key competitive resources. At the same time, it was hoped that the use of the title would differentiate work in the area from previous related traditions of research in the areas of entrepreneurship and small business studies. Entrepreneurship is certainly relevant and important, but has been studied largely as an individual phenomenon. As a result, we know a great deal about the characteristics and personality profiles of entrepreneurs throughout the world. However, it was felt that the paucity of knowledge, other than anecdotal, about the organisational processes of venture formation and management and the processes of organisational growth and transition from small to medium size, demanded urgent attention. Attention was demanded because so little was known theoretically and conceptually about these issues – not just in Ireland, but internationally – and because many industrial policy decisions were likely to be made during the 1980s concerning the stimulation of new venture activity and the support of growth strategies at the enterprise level.

*The author is lecturer at the Enterprise Centre and Department of Marketing, University College, Dublin.

IBAR — Journal of Irish Business and Administrative Research, Volume 7, Number 1, Spring, 1985, pp. 1-9.

The connection between this concept of enterprise development and innovation is self-evident. New and growth oriented enterprises are very frequently the vehicles for innovation, especially in new and growing industries. The concept of enterprise development as used at The Enterprise Centre, UCD also encompasses the processes involved in enterprise or corporate renewal – the processes on which long term, continuing, company development is based. And here too, both product and process innovation lie at the heart of the strategic renewal process whether it is based on product and market development or on productivity enhancement.

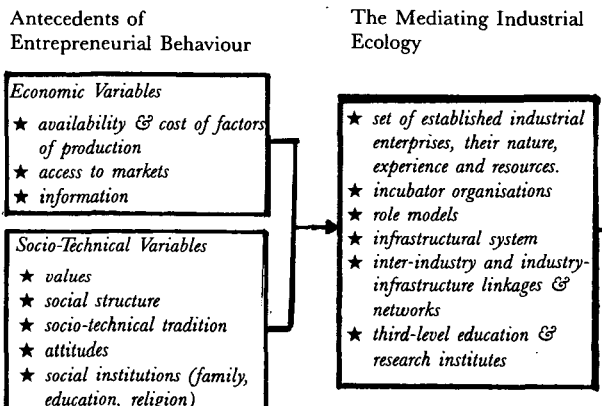
These two broad, related, topics of enterprise development and innovation had not been widely studied in Ireland prior to 1980. Since 1981, however, this journal alone has published as many as twenty articles which contribute in important ways to our understanding of the processes involved. This collection of articles marks a further step along the path of inquiry and knowledge-creation and demonstrates how the intellectual and research resources of the nation may at the one time be applied to understanding matters of considerable conceptual interest and also of practical managerial and public policy importance.

This author proposed a conceptual framework in 1982 which may help to integrate the contributions to the symposium within a broader framework of understanding [Murray, 1982]. The framework is shown in modified form in Figure 1. It suggests that entrepreneurial processes in a society have two principal classes of antecedents – economic and socio-technical ones which fundamentally determine the demand for, and supply of, entrepreneurial activity. It is further argued that the impact of these antecedent factors is powerfully mediated by aspects of the nation's or region's industrial ecology. Entrepreneurial actors are conceptualised as *both* individuals and organisations and entrepreneurial behaviour is seen to manifest itself in new venture formation processes and in corporate renewal processes.

The Symposium

Kennedy's article provides a comprehensive backdrop to the issues discussed in the symposium from a small business perspective. Aspects of both the economic and socio-technical factors influencing the formation and behaviour of small businesses are explored by the author and the ecological role of the small business sector is described in terms of its contribution to employment, to filling subsupply needs, to regional economic needs and to the generation of a seed-bed from which the relatively few high-growth potential companies must spring. Policy recommendations are made which focus on a "two-tier" approach acknowledging the important ecological role of the small businesses which will always be small, and suggesting mechanicms to identify the young,

Figure 1


Antecedents of
Entrepreneurial Behaviour
The Mediating Industrial
Ecology
Economic Variables
★ availability & cost of factors of production
★ access to markets
★ information
Socio-Technical Variables
★ values
★ social structure
★ socio-technical tradition
★ attitudes
★ social institutions (family, education, religion)
★ set of established industrial enterprises, their nature, experience and resources.
★ incubator organisations
★ role models
★ infrastructural system
★ inter-industry and industry-infrastructure linkages & networks
★ third-level education & research institutes

Entrepreneurial Actors
Entrepreneurial Behaviour
Individuals
★ independent entrepreneurs
★ administrative entrepreneurs
Organisations
New Venture Formation
Corporate Renewal

small, but high growth potential firms for special attention and support from the state system.

Walsh's paper on venture capital probes in some depth critical aspects of the economic factors determining entrepreneurial activity. The article shows how vital access to an appropriate supply of capital is for the new and developing firm. It documents some of the alarming findings of the NESC report on the financing of Irish industry [NESC, 1984] and in particular its low profitability and quite dangerous dependence on borrowings. These factors together with some of the traditional structural biases against investment in manufacturing industry tell us much about past confusion and disjointed incrementalism [Lindblom, 1957] in public policy making. As a nation we cannot afford to say on the one hand that we wish to have more and growing business ventures while at the same time putting, or maintaining, in place fiscal policies that actively discriminate against investment in industry and prevent entrepreneurial persons and their workforces from personally benefitting from success. During the sixties and the seventies the country developed a quite stunning capability to implement policy with just such contradictory elements. Some of this may be explained by policy making processes of the "muddling through" variety described by Lindblom (1957). Decisions taken one at a time and independently have a persistent knack of never adding up to anything coherent or consistent and perhaps this is what the record shows. There would also seem to be good reason to attribute some of the conflicting threads in policy to political and cultural double-think. The political process is often characterised by an apparent lack of comfort with the notion of private wealth anywhere except in agriculture. Culturally, the remaining influence of the traditionally dominant rural family system may explain some of the values in Irish society which reject and attempt to suppress successful entrepreneurial activity because it represents a mechanism by which social and economic mobility may be acquired. The extent to which internally contradictory fiscal policy may be attributed to bureaucratic process, to political or to social values shaping the behaviour of legislators must remain an open question. It would be helpful if political and social scientists as well as historians were to address their skills to explaining the origins of, and influences on, the public policy decisions that have been made affecting industrial development.

Walsh's paper serves to highlight several areas of priority. The need to attract far more equity funding into new and established industry is one. The vital role that schemes such as the Business Expansion Scheme could play in achieving this aim is signalled as well as the urgent need to modify those aspects which make it largely ineffective at the moment. The significant gap in the supply of seed capital is also highlighted as well as the attendant shortage of a large number of high growth potential seed capital venture proposals. In the case of the former, adjustments are being

made to the supply of seed capital through the mechanism of the National Enterprise Agency and the National Development Corporation. It is vital that the policies pursued by these agencies reflect the normal performance and cash characteristics of seed type ventures if their efforts are not to be ineffective. Improvement in the number of ventures seeking seed capital will reflect long-term changes in socio-technical variables and ecological factors. As attitudes change to attribute legitimacy and status to entrepreneurial activity and as the educational system, especially third-level, shifts towards a greater engagement with the world of industry and technology, one should expect to see a greater quantity of feasible knowledge and technology intensive venture proposals in search of seed capital. Ecological factors will also affect this flow of seed capital proposals, as the industrial ecology deepens, as technology-based and international market based ventures grow and develop expertise and skills in venture management. One may reasonably expect many people who acquire such expertise to begin to spin-off into ventures of their own. Such spin-off activity has been notable by its absence from Irish entrepreneurship to date [Cogan, 1981; Murray, 1983]. We are only at the start of a long evolutionary process leading to the creation of a deep, integrated, industrial ecology, one vital feature of which has to be a set of incubator organisations that provide the training ground from which entrepreneurs spin-off to start complex new ventures.

Barry's article probes evidence concerning another aspect of the industrial ecology which has played a very major role in innovation and enterprise formation in the United States. This is the interconnection of university research and knowledge resources with rapidly growing knowledge-based ventures (most notably in the Boston – MIT – Route 128 area, in Stanford and in the south-east research triangle and in more recent times in the Cambridge area in England). Barry's study shows how modest the level of activity still remains in Ireland but it also shows that the linkage of Universities and industry via state supported R & D programmes can work quite successfully even if the scale is modest. There is one particularly important signal from this research for policy makers in the area of education. Industry enters into R & D linkages when it sees unique, and truly excellent resources in the universities. On these it will draw. One may reasonably infer that industry is unlikely to see any attraction in forming linkages with the average or the mediocre in the third level system. The message is clear. If linkages are to be forged, and it is vital that they should be as we enter an era when international competitive advantage is based in the knowledge resources of industry, then the universities must be staffed and resourced to the highest international standard. As resources will never be sufficient to fund excellence in all areas the need to identify and develop important centres of excellence in a selective manner seems overwhelming. This can be done not by some public policy fiat but by allowing the universities to form concentrations

in areas of special expertise and by amplifying their initiatives through selective funding.

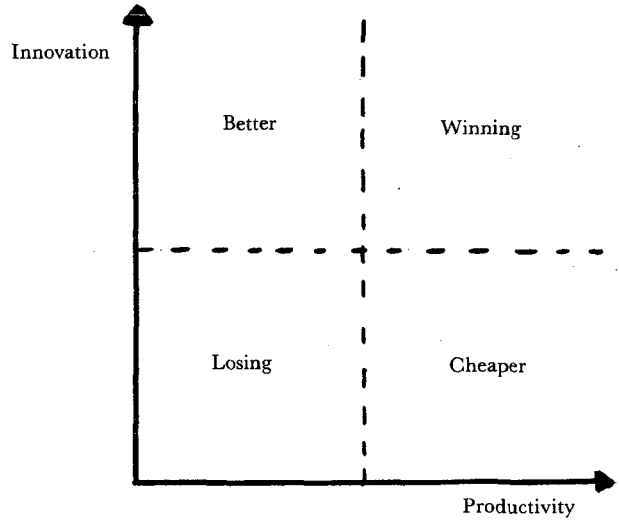
O'Sullivan and Tomlin's article reports on an important follow-on study to the Allen research of a decade ago on innovation in Irish industry [Allen, 1979]. The findings of this study provide further details of the evolving ecology of established industry and of the role of innovation in the entrepreneurial process of corporate growth and renewal. The findings contain both good and bad news. The less welcome news is that the overall strategic position of most of the companies studied is very weak – positioned in mature or declining industries and competing principally on price rather than quality or service factors. A persistent worry arising from the structure of established Irish industry is that the portfolio of companies in the country is heavily biased towards a combination of mature and declining firms in mature and declining industries. If we add to this the evidence concerning low profitability then we have an alarming picture of a national portfolio of businesses dominated by 'dog' type enterprises – weak companies in unattractive markets. The usual strategic management prescriptions for dealing with such investments in a corporate portfolio are either to harvest and divest or to resegment the markets and innovate in order to renew or 'reinvent' the competitive capability of the business units. Looking back at the model of entrepreneurial activity shown in Figure 1, there is a strong case to be made for allocating high priority to the issue of corporate renewal and entrepreneurial strategy in the established firm (Murray, 1984). Attention to this area is growing rapidly in the United States in response to their industry's loss of competitiveness and academic work in the area promises to generate a significant shift in the whole conceptual framework of management and organisation theory [see for example Lawrence and Dyer, 1983; Abernathy, Clark and Kantrow, 1983; Porter, 1980, 1985; Moss-Kanter, 1983].

There are good tidings in the O'Sullivan and Tomlin study also. The new firms included in the sample exhibit a far stronger strategic capability and market positioning, reminding us that we must not place too much emphasis on cross-sectional research in a rapidly evolving industrial system. The industrial ecology is evolving and these findings suggest that the direction of evolution is correct – towards stronger strategic and competitive positioning, active management renewal, differentiation as a basis for competition, very significant success rates in innovation, and a real commitment to the deepening of corporate capability by both indigenous and foreign firms. The doubling of the rate of innovation since the Allen study, the shift into product innovation and the commitment to new product development strategies are all impressive and encouraging findings. The authors call attention to the challenges faced in continuing down this path for companies that are, as yet, weak in strategic and R & D resources and suggest the need to build networks between firms and

other elements of the national industrial system where interdependencies either do not exist or have proven ineffective to date.

Walsh's article concerning the perspective and policy of the Industrial Development Authority is an appropriate conclusion to the symposium as it serves to close the circle with Kennedy's paper and some of his recommendations with regard to small firms policy. Walsh's paper outlines the perceived challenges to industrial strategy for the eighties and documents the evolution of IDA strategy towards one that stresses productivity growth as a basis for creating competitive success and growth in output. The individual strategies which flow from this approach illustrate how thinking on industrial policy has become more complex and realistic in the post-Telesis period. Differentiated strategies are in place to deal with the support of medium to large companies in their drive for international expansion; for overseas companies to encourage the deepening of their managerial and technical commitments in Ireland; and for small business to promote venture formation in general and then to identify and provide special support for those with real growth potential. The strategy also includes components that actively encourage the development of an integrated ecology through emphasis on the national linkage programme and support for entrepreneurial initiatives and activity stretching back into third-level education.

The emphasis on productivity in current IDA strategy is welcome. Consciously or otherwise it fits with a general European and North American awakening to a disasterous loss of competitiveness during the sixties and seventies. The shock waves of this recognition have served to focus the attention of senior managers, policy makers and management academics on the causes of relative productivity losses. This attention has created a new awareness of the importance and role of manufacturing strategy in competitive success. It has also provided a powerful stimulus to the study of corporate innovation and of human resource practices and their impact on corporate success and failure. Above all it has refocused the debate and the literature in strategic management to deal more directly with competitiveness and with the interlinkage of markets, technology, human resources and manufacturing systems to achieve winning positions in the market place. The principal danger of a narrow emphasis on productivity is that the other key dimensioin of strategic success – innovation – may be forgotten or underemphasised. There are two primary or generic paths to strategic success in the marketplace. One is the pursuit of productivity leading to the provision of a product or service to the market at lower cost than the competition. The second is the pursuit of innovation leading to the provision to the market of better products or services than competitors can offer. These two axes of competition are illustrated in Figure 2.



The strongest and most unassailable competitive position lies in the upper right hand quadrant – being both innovative and efficient. This is also the most difficult position to attain in managerial and organisational terms because innovation and productivity are uneasy partners and require complex strategies, subtle strategists and differentiated structures if they are to coexist. The disturbing feature of Irish industry is that much of it is *neither* productive nor innovative. A recent study of the food industry classified the overwhelming majority of firms in the lower left-hand quadrant when innovation was measured in terms of new product introductions and productivity measured in terms of turnover per employee [Dignam, 1984]. Strategic and competitive reality is such that few firms can move from the lower left-hand quadrant directly to the upper right-hand one. It is more usual to proceed out along one of the two axes first and then to graft productivity onto innovativeness or innovation onto productivity. For example, the latter has been the strategy of successful Japanese car manufacturers and the former the strategy of the newly competitive European automobile producers. In Ireland we must move on both axes as the demands of competition in different industries require and as the resource base of our stock of companies makes possible. If there is one thing that we should know by now it is that there is no one route to competitive success. Strategies and related corporate structures must be tailored to fit the structure and competitive dynamics of an industry environment and to reflect the accumulated experience and resources of the company seeking success and growth in a particular environment.

It is hoped that the following papers will contribute to the debate on industrial policy and on the management of Irish enterprise. We face a complex and dynamic environment whether we are managers, policy makers or academics. Our only hope in attempting to penetrate and exert

control over this complexity is to ensure that we are armed with variety and richness in our appreciation of the situation. Variety and richness are produced by open, analytically based debate and scientific research. We owe it to ourselves collectively to devote time, resources, and attention to these latter processes. This symposium represents a worthwhile and timely contribution.

REFERENCES

ABERNATHY, W. J., CLARK, K. B. and KANTROW, A. M., 1983. *Industrial Renaissance,* New York, Basic Books.

ALLEN, T., 1979, "Transferring Technology to the Firm: A Study of the Diffusion of Technology in Irish Manufacturing Industry", *Journal of Irish Business and Administrative Research,* Vol. 1, No. 2.

COGAN, J. & ONYENADUM, E., 1981, "Spin-off Companies in the Irish Electronics Industry" *Journal of Irish Business & Administrative Research,* Vol. 3, No. 2.

DIGNAM, L., 1984, "Entrepreneurial Strategy in the Irish Food Industry", unpublished Working Paper, The Enterprise Centre, University College Dublin.

LINDBLOM, C. E., 1957, "The Science of Muddling Through" *Public Administration Review,* Vol. 19.

LAWRENCE, P. R. and DYER, D., 1983, *Renewing American Industry,* New York, Free Press.

MOSS KANTER, R., 1983, *The Change masters: Corporate Entrepreneurs at Work,* Allen & Unwin.

MURRAY, J. A., 1982, "An Experiment in University Education for Entrepreneurship & Innovation", in Maring, K. W. & Brikkenaar van Dijk (eds.), *The Education of the Engineer for Innovation and Entrepreneurial Activity,* Delft, Delft University Press.

MURRAY, J. A., 1983, "Entrepreneurship & Innovatioin: Some Research Findings", *Journal of Irish Business & Administrative Research,* Vol. 5, No. 1.

MURRAY, J. A., 1984, "A Concept of Entrepreneurial Strategy", *Strategic Management Journal,* 5.

NESC, 1984, *The Role of the financial System in Financing the Traded Sector,* Report No. 76.

PORTER, M. E., 1980, *Competitive Strategy,* New York, Free Press.

PORTER, M. E., 1985, *Competitive Advantage,* New York, Free Press.