Anderson, A. R., & Atkins, M. H. (2001). Business strategies for entrepreneurial small firms. *Strategic Change*, *10*(6), 311-324.

Business Strategies for the Entrepreneurial Small Firm

Alistair R. Anderson & Martin H. Atkins

Department of Management Studies,
University of Aberdeen
Edward Wright Building
Old Aberdeen
AB 24 3QY

Telephone 01224 273260
Email a.r.anderson@abdn.ac.uk

Business Strategies for the Entrepreneurial Small Firm

Abstract

This paper addresses the issue of the nature of business strategies in entrepreneurial small firms. It examines a number of existing models of strategic planning and suggests that they cannot adequately cope with environmental uncertainty. Developing the idea that effective strategy formation is processual in a stochastic environment, the paper proposes four possible "meta" strategies entrepreneurial firms might use to cope with uncertainty. These stress the notion of 'becoming' as a direction rather than a series of staged events.

Summary

The first part of this paper discusses the current evidence on the nature and purpose of strategic planning in entrepreneurial small firms and the second part develops an analytic approach to planning analysis which shows that none of the earlier approaches to strategic planning is appropriate for the entrepreneurial small firm. Instead, we propose four "meta" strategies that firms might employ to cope with uncertain environments.

The strategic management of the enterprise needs to be focused more on the "strategic" level in the context of the overall aims and objectives of the organisation and therefore less attention should be paid to the "tactical" level that implies a belief in the linearity of action and effect

The authors

Alistair Anderson is a Senior Lecturer in the Department of Management Studies. He is also Deputy Director of the Centre for Entrepreneurship at Aberdeen University. His research focus is the entrepreneurial process, trying to understand how new ventures are created. He has published widely on different aspects of this topic.

Martin Atkins is Senior Lecturer in the Department of Management Studies at Aberdeen University. He was a member of the research team for *the Bolton Committee of Enquiry* and since then has held lecturing posts at Nottingham, Nottingham Trent and Wollongong Universities before moving to Aberdeen. His research focuses on Business Strategy and Information Technology Management.

Business Strategies for the Entrepreneurial Small Firm

Strategy and planning in entrepreneurial firms

Quinn (1980) provided a useful definition of strategy:

> "*A strategy is the pattern or plan that integrates an organisation's major goals, policies and action sequences into a cohesive whole."*

This definition of strategy includes planning as part of the "strategy formation" process. Subsequent definitions of strategy - for example, Mintzberg's "5Ps of strategy" (Mintzberg 1987) - recognise that strategy is a broader concept than just planning (it also can be seen as "Ploy", "Position", "Perspective" and "Pattern"). In consequence strategy formation is a multi-faceted activity. We reserve the use of planning to encompass the activity of preparing forecasts, in greater or less detail, of future business actions, activities, and possibly outcomes such as sales and profits.

Another way of distinguishing between the strategy concept and planning is that they are seen to be on two levels - one at an ideas level and the other at an actions level. Organisations articulate their "business plans" at the actions level but the other facets of strategy do not fit neatly into aspects of business which generally might be written down. Rather more, they can be regarded as higher-level ideas (which we call "meta strategies") that transcend, in the main, a formal, written planning document. Further, they can be separated into two categories which may be called "ex ante" and "ex post" which reflects, in Mintzberg & Waters' (1985) terminology, whether the strategy was deliberate or emergent. Specifically, Ploy, Position or Perspective strategies might be seen as deliberate (and hence "ex ante") because such strategies are frequently the outcome of specific decisions which have been taken in order to achieve the desired end result. Alternatively, a Pattern strategy might be seen as emergent (and hence "ex post") since this can be seen as a retrospective rationalisation of past events and actions. Beaver and Ross (2000) point out that for large firms strategic management is a predictive process but for small firms it has to be an adaptive process.

The introduction of time as one of the frames of reference for categorising strategy is important as both strategy formation and planning are concerned with the future.

There is an infinite number of possible futures, but the extent to which firms choose one or more of these possible futures as templates for shaping action will be influenced by the nature and involvement of internal and external stakeholders and the organisation's cultural attitude towards strategy and planning (Johnson & Scholes, 1999:73). De facto, "the future" lies exclusively in the realm of ideas because the future is essentially unknowable. McGuinness and Morgan (2000) argue that the use of history for strategic planning is limited and possibly erroneous. Thus, it is our case that, paradoxically, strategy which is based on ideas is more useful than a mechanistic plan which is based on a transpired past.

In the case of some small businesses external forces can dictate whether the business stays solvent or not. (Thomson,1997) It is generally less possible for small business to influence their environment because they are less powerful. Hall (1995) also suggests that formal planning may be less important for small firms. Until they grow, the key consideration may be the psychology of the owners. However, Smith, (1998) argues that her evidence shows that planning as defined in the business strategy literature for large organisations, can also be effectively applied to the new micro firm. Although small firms and entrepreneurship are often linked (Curran, 2000), the desirable outcomes of entrepreneurial activity - wealth creation, new jobs, economic growth, even new industries, are only to be found in a minority of entrepreneurial small firms (Storey, 1994). As Gray (1998:33) put it, “very few of Britain's self-employed should really be described as entrepreneurs in the sense of being innovative or even being interested in growth”. Curran and Blackburn (1999) comment that it is fallacious to assume that the objectives of all, or even many, small business owners can be termed entrepreneurial in the sense of creating newness or striving for growth. In fact the entrepreneurial small firm can be distinguished from the typical SME by the incorporation of novelty in the firms' activity. Schumpeterian novelty or innovation is the crucial characteristic that sets the entrepreneurial small firm apart from the rest. This novelty may be in product or process, but is defined as some new combination. Growth, as Storey (1994) has pointed out may well be associated with this novelty, but for our working definition of an entrepreneurial small firm we argue that a degree of originality is the determining demarcation. Accordingly entrepreneurial small firms have to deal with change, since change is an outcome of originality. Moreover, the outcomes of these changes are essentially unknowable and cannot be predicted by historical analysis. Beaver and Ross (2000) cite Porter's (1987) trenchant comment, entrepreneurship unguided by strategic perspective is more likely to fail than to succeed.

This presents a dilemma, entrepreneurs are told that planning is a good thing, but the nature of planning and subsequent strategy in entrepreneurial small firms raises both practical and conceptually interesting issues. The literature indicates whilst the majority of new small firms do not formally plan (Robinson and Pearce, 1984), the received and asserted wisdom is that planning is a "good thing" (Castrogiovanni, 1996). However the benefits of this "good thing" are not immediately evident (Wickham, 1998). For example, the links between planning and improved performance are equivocal (Pearce, Freeman and Robinson, 1987), if not confusing. At best it can be said that growing firms tend to plan more (Storey, 1994), but the direction of causality remains unclear. This raises the question of why entrepreneurial firms plan.

For the entrepreneurial firm the need for outside finance creates a requirement to produce a plan. Stokes (1995) suggests that most small business managers perceive the business plan as a document produced to raise money. Murphy (1996) goes further and suggests that the plan serves as a written dialogue between the entrepreneur and the bank - it becomes a means by which outsiders can get a grasp on what the new business is about. Mason and Harrison (1996) looked at informal Venture Capital funding and found that more than three-quarters of the investor respondents in their survey required to see a business plan before making an investment decision. They concluded that a business plan is a necessary but not sufficient condition for raising informal venture capital and that business angels need to see a "comprehensive, realistic, investor-oriented business plan", but that "ad-hocery and rules of thumb" dominate. They confirm the overwhelming importance of "people and product/market considerations" in an actions-based plan.

One of the key business skills that appears in most courses in Entrepreneurship is the preparation of business plans. Wickham (1998, op. cit.) suggests that they are essential, because without a carefully prepared business plan, no business would stand much chance of success in securing external funding. The danger is that highlighting the importance of the plan for funding purposes runs the danger of inexperienced entrepreneurs of "the plan becoming the business". Given the need to prepare a business plan that accentuates what the entrepreneur believes external stakeholders want to know, most business plans will concentrate on tactics and actions. Given this emphasis on action, (Schamp and Deschoolmeester, 1998) the typical business plan from a small firm is therefore likely to dwell on tactics but be lacking on strategy (Anderson and Atkins, 2001).

Some strategy formation approaches

The following section moves from the general aspects of planning in small firms to specific elements of strategy formation. The analysis draws upon a number of (sometimes quite distinct) strands of thinking on strategy formation. It provides a framework for analysing different approaches to strategy formation to identify their appropriateness for use by entrepreneurial small firms. The pictorial form of analysis used here also provides a useful link into the "meta" strategies that we propose later for use in entrepreneurial small firms.

The strategic plan

The first approach to strategy formation is one we call "strategic" and is illustrated in Figure 1;

FIGURE 1 HERE

This is a genre of strategy formation described by Mintzberg (1990) as "The Design School". From a particular starting point, a specific end-point is identified and the strategy justifies the choice of the end-point and the means taken to get there.

This model of strategy might be considered totally conventional to anyone who has passed through a business school education in the USA or Europe. It would include an analysis of the industry, together with a review of the key forces determining the direction and profitability in that industry (STEP or PEST analysis). This is likely to be followed by an analysis of the structure of the industry and the determinants of profitability of individual firms (probably using Porter's five-forces framework). It would probably include a review of the internal strengths and weaknesses of the organisation and the threats and opportunities (SWOT). These three components will form the background and rationale for a preferred strategic choice which will be presented as the best way forward.

Obviously this describes only the bare outline of this type of strategic plan and most will contain considerable amount of detail and financial analysis. In many respects it is similar to what Mintzberg & Waters described as the "vision" in their comparison of deliberate and emergent strategies (op. cit.). Indeed, in the context of entrepreneurship it is useful to quote Mintzberg and Waters:

> *"Because such strategies are rather common in entrepreneurial firms, tightly controlled by their owners, they can be called entrepreneurial strategies." (ibid. p.260)*

In his critique of the Design School approach to strategy formation and its pedagogical foundations, Mintzberg pointed out the dangers of a rigorous adherence to "the plan". Essentially two factors are advanced for this; first, the strategy itself may be ill-conceived and secondly, there may be 'slippage' or 'drift' in the implementation of the strategy, either because of a change in the environment or because of organizational resistance. However, a key part of Mintzberg's argument is that strategy formulation and implementation ought not to be distinct activities and both should be carried out together. Mintzberg describes the assumptions of the Design School, "that environments can always be known, currently and for a period well into the future, in one central place, at least by the capable strategists there." (ibid, p186.). These, he claims are "very ambitious" and discusses how organizations might cope in unstable environments. Coping might be possible, he argues, if the necessary information can be comprehended in one brain: "such close control of a leader over both formulation and implementation is characteristic of the entrepreneurial mode of strategy-making" (ibid. p186). In larger organisations, the argument goes, a number of possible relationships between thought and action are possible, one of which is organisational learning with allusions to logical incrementalism (Quinn, 1980) and implementation as evolution (Majone & Wildavsky, 1978); obviously important issues to which we return later.

The implementation plan

FIGURE 2 HERE

An implementation plan approach lacks the 'vision' of the strategic approach. It probably begins with an assumption or an acceptance that a particular course of action is correct. Mintzberg & McHugh (1985, p160) describe this type of strategy as the "systematic 'formulation' and articulation of deliberate, premeditated strategies, which are then 'implemented'."
We have characterised this approach by a series of actions, stages or "building blocks" necessary for the successful conclusion of a strategy. It may not be dissimilar from (and in certain types of organisation may closely resemble) a network used for Critical Path Analysis planning. This type of plan is likely to be typical of the business plans entrepreneurial businesses use to support funding applications because it appears to offer certainty. Courses of action are carefully detailed and programmed activities are checked; in short, the production of this planned strategy implies knowledge of future events. "Belief" in this form of plan can often result in the business coming to grief. In one case known personally to us, the "advice" in the business plan given by the Local Enterprise Company and another provider of assistance to small firms was unswervingly "believed" by the two novice entrepreneurs, but financial disaster could not ultimately be avoided because forecasts of some of the basic elements such as price and market share were incorrect.

The implementation plan approach can only be appropriate in the very short run or in environments which are inherently stable. For environments which are turbulent, or for initiatives that will take more than a very short time to come to fruition, this planning form is likely to be inappropriate. A weakness of this approach is its deterministic nature. It assumes, almost mechanistically, that there will be a direct relationship between input and output. Such an assumption applied to human organisations is heroic! When the environment within which organisations operate is turbulent there are countless ways in which outputs fail to match expectations.

Figure two shows a planning model that identifies four steps or building blocks; in practice most organisations will find there are many more. This compounds our concern that organisations that plan in this way will, almost inevitably, be perceived to have 'failed' to adhere to their carefully laid plans, yet 'success' was never likely given the nature of the assumptions underlying the model. Prahalad and Bettis (1986) criticise this sort of model on the basis of the 'dominant logic' and the presumption of 'rationality'. As Hurst et.al (1989) put it: "Facts which can be plotted onto this map of the business are accepted: data which cannot be assigned co-ordinates are not perceived, are ignored if they are perceived or treated as an aberration". Much earlier than this, Barnard (1938) emphasised the importance of "non-logical" processes, thus the advantages of non-mechanistic recognition processes are ignored in the naïve realism of this type of model. Further, such emphasis on logic and rationality precludes it from being helpful in the innovative, creative processes. So, as Hurst et. al. (op.cit) note (p234) "this appeal to rationality - measurability, efficiency and consistency - perpetuates the past....it cannot bring into being those new activities which may well be required as part of tomorrow's business".

Discovery driven planning

The third approach was proposed relatively recently (McGrath & MacMillan, 1995). Figure three represents this approach with four actions, stages or "building blocks" which are numbered in reverse sequence. Essentially, this approach considers first the assumptions underlying the model. Instead of emphasising (for example) particular sales levels and cost structures which "result" in a given profit level, revenues and costs and the assumptions upon which these are based are identified from the anticipated profit level through an approach which may also be described as "goal-seeking". This enables the organisation easily to test assumptions against likely levels. There are considerable strengths to this model. It is holistic and concerned with outcomes and in the sense that there is a 'vision' of the outcome, the model is "strategic" but also purposeful.

FIGURE 3 HERE

These approaches reviewed

For many firms the internal and external environments are marked by substantial and on-going change. This "turbulence" has been analysed in the context of Chaos Theory and it is appropriate to consider its implications for business strategies.

Chaos Theory (see Gleick (1987) for a full account) suggests that planning is futile, in part because in every business situation the start-up conditions are distinct from those for every other organisation. Moreover, because the "environmental generators" will NOT remain as they are for ever, the prospect of forecasting except in the very short run is a gloomy one indeed. Using the analogy of the weather forecast, the mere extrapolation of existing data is unreliable for making "forecasts" of the weather two weeks or more ahead and the alternative method of "pattern-matching" can be more effective.

Two significant aspects of business systems suggest that they can be considered Chaotic. (It must be emphasised that the term Chaotic does not imply merely a randomness in a phenomenon; to be Chaotic a system needs to oscillate between states in an unpredictable manner but one which has a discernible pattern to it. Thus for example, although all oak-leaves are different they are recognisable as oak-leaves.) First, almost regardless of the type of system considered, whether it be for production, consumption, or all the myriad of in-between elements, business systems are complex and dependent upon a large number of actors and agents. This point is reinforced when it is recognised that the kinds of relationships observed in organisational systems are non-linear and with numerous feedback loops. Second, in most instances business systems depend upon human beings who do not always behave as if they are pre-programmed automata. It seems inappropriate, therefore, that business plans should extend one, two or three years ahead, when the basis of the primary assumptions is not correct. The felony is compounded - all too frequently in our view - when the budding entrepreneur is made to feel guilty or inadequate about his or her "failure" to keep to the plan or yields to the "false promise" of an "accepted" plan. By its very nature, a plan is capable of lending a misleading sense of certainty to the entrepreneur, perhaps giving the impression that nothing could go wrong if the plan is adhered to.

This point was neatly developed by Stacey*: "...strategic planning exercises will not achieve what they are intended to. They may serve other purposes, such as providing feelings of certainty, security and comfort... If managers are operating in systems that need to be far-from-equilibrium to be successful and they approach their task with the planning mentality, they will inevitably find themselves repeating what they have already done successfully or imitating what others have successfully done."*

(Stacey, (1993), pp233/4)

There are other serious implications of the acceptance that business systems are Chaotic. The "butterfly" story from Chaos Theory (Lye 1994) purports to convey the idea that a butterfly beating its wings eventually will change weather systems and patterns, possibly, in an extreme and dramatic way. We do not have to believe the totality of such a proposition to accept that every business faces circumstances that are similar to but not identical with those of its competitors or colleagues. All of the many definitions of entrepreneurship contain elements of the notions of novelty, innovation and, concomitantly, uncertainty. Thus, by definition, the entrepreneurial environment is unpredictable and inherently chaotic. It is in the subtlety of the differences between individual organisations both internally and in terms of their relationship with the external environment that generates success or failure, rags or riches. These differences cannot be anticipated and could hardly be measured. Accordingly, a set of prescriptive working guidelines for entrepreneurs is unlikely to prove appropriate for any one of them. Decisions have to be taken on the basis of the idiosyncratic situation of the individual firm and what appears to suit it best at that time.

The evidence suggests that the environment for entrepreneurial firms is turbulent, if not Chaotic. This implies that the linkages between the elements in all three approaches we have described above are going to be stochastic. The future is not known with any certainty and the entrance of an entrepreneurial firm into the marketplace is a further disturbance to the equilibrium. The three approaches to strategy formation - and, because it is likely to be that most favoured by entrepreneurial firms, particularly the second - are likely to be wholly inappropriate. Instead, we would encourage all entrepreneurs (and, inter alia those that fund them) to realise the fallacy of misplaced reliance on forecasts and prepare strategies to reflect a mindset that is open to change.

Some strategies for managing in an unknowable future

In this section we put forward a number of "meta-strategies" which may be appropriate for managers when the future is unknowable. Weick (1987, 1995) has suggested that businesses should "enact the environment" in the sense that they should be aware of and share in the changes taking place around them instead of reacting to those changes. Our "meta"-strategies go some way to operationalising this concept, particularly if entrepreneurs can see their role as change agents. “Meta”-strategies avoid the fallacy of a direct link between actions and outcomes. They therefore reduce the emphasis there might be on actions; as "meta"-strategies they are intended to reflect how entrepreneurs might think about the development of their business. They are intended to reflect a mindset that acknowledges the unknowable nature of the future and they emphasise the need for entrepreneurs to build a strategic overview of their enterprise and an open-ness about tactics. The first two of these “meta”-strategies can be analysed using the framework developed for our earlier analysis whilst the last two must remain as "ideas in the mind".

Robustness

The first strategy for an unknowable future draws upon the notion of robustness advocated by Rosenhead (1989) and we have linked to it the concept of the "umbrella" strategy proposed by Mintzberg and Waters (1985, op.cit.). (Our diagrams of alternative strategic approaches develop some of the diagrammatic devices used in that paper). The links between "components" (i.e. actions, stages or "building blocks") are stochastic and not mechanistic. The organisation recognises the stochastic nature of the environment in which it operates. Providing outcomes are within reasonable limits (the boundaries are set by the resource availabilities or the performance specifications determined internally or imposed externally), the organisation will continue to operate. We may suppose that if actual performance takes the organisation outside the boundaries of the umbrella, "failure" will occur. Alternatively, a behavioural view of the organisation (Cyert & March, 1963) would suggest that such an event would provide the trigger for reviewing performance specifications with a view to finding a course of action that meets revised specifications. The "umbrella" may change over time since it will be a function of internal resources, which may expand or contract. In addition, it may be a function of performance specifications set internally or externally; which, in the case of externally determined performance specifications, may also be subject to stochastic change.

What makes any particular strategy "robust" is its ability to tolerate deviations from expected values, providing those deviations are within acceptable limits (shown as A1 and A2 on figure 4). "Robustness" is not a characteristic which has been stressed by the literature on strategic planning for some time. The evidence from Mason & Harrison (op.cit.) is that business plans need to build - if not reinforce - external stakeholders' confidence in the business. We therefore suggest there may be a cultural block on accepting the possibility that linkages will be stochastic and not deterministic, reflecting a positivistic paradigm and an (understandable) search for universal laws of causality. It seems much "safer" to presume that linkages are deterministic because it is considered

FIGURE 4 HERE

(erroneously) more likely to persuade the decision-maker that everything is under control. In other words, it might be taken as a sign of weakness if linkages were recognised as stochastic. Given that, as we have already suggested, venture capitalists are known to be looking for people they can "trust" with their investment, it may be easy to suppose that "strong management" or "resolute ideas" are indicative of trustworthiness. This is a point on which much more empirical evidence is required since we could alternatively envisage a situation in which the very same venture capitalists found it much easier to trust applicants who admit that they don't have all the answers just yet. Admitting you are aware of some of the pitfalls, and expressing confidence in your ability to overcome them, may be another way of building both trust between people and confidence in the long-term integrity of the strategy.

Flexibility

The significant difference between this and other strategies is the absence of an ultimate goal. Instead, the model suggests that, given the stochastic nature of the linkages, there are multiple futures. In some cases there could be could be "failures" which result in the abandonment of an action. Alternatively, there could be a deliberate choice to withdraw from one type of action and substitute another. This is entirely analogous to the use of "options" as an appropriate form of decision-making. Such advice is not new; text books on decision-making have identified for many years how to calculate the "value of Perfect Information" or the benefit achieved from delaying a decision until more information has been acquired. Nor is such behaviour uncommon practice:

- many staff are accepted on trial periods before their contracts are confirmed;
- many organisations undertake test-marketing before deciding to undertake full-scale production; and
- oil companies have extensive experience of using satellite and seismographic surveys before making decisions about whether and where to make a test drilling.

All such actions are examples of "flexible" behaviour given that they imply the acceptance of the possibility of withdrawal from an action. It is important to consider the relationship between "flexibility" and other responses to the uncertain environment. In the context of farm planning, Heady (1952, p524) stressed the fact that flexibility "allows for changing of plans as time passes, added information is obtained and ability to predict the future improves". He enumerated three forms of flexibility: time flexibility, cost and factor flexibility, and product flexibility. In the context of time flexibility, the farmer who makes medium or long-term investments in, for example, orchards or cane fruit, has less opportunity to review farm activities from one year to the next than the farmer who has not made such a commitment. Cost and factor flexibility relate to the choices that have to be made about the factor combinations utilised in the firm; a "flexible" combination may not utilise the absolutely lowest cost combination of factors, but the chosen technology would permit a longer-term cost-minimisation avoiding the need for frequent changes of direction. Likewise, product flexibility implies the utilisation of resources in such a way as to maximise the opportunities for switching production from one enterprise to another; this may involve some short-run costs (in terms of not achieving maximum revenues), but the costs of change are reduced and medium or long-term net revenues are enhanced because the likelihood of failure (bankruptcy) is reduced. Heady's discussion of farmers' reaction to uncertainty provides a very useful clear distinction between "robustness" and "flexibility" in terms of whether a particular action is intended to stand over time (as in the case of the former) or whether, over time, changes in direction are accepted (and encouraged) as in the case of the latter.

Audley Genus (1995) focuses particularly on the contribution of organizational learning to flexibility and how alliances and networks can deliver flexibility for the organisation. Nevertheless, organisational structure and culture have to be right for flexibility. Once again, we come back to the critical point that the mindset has to be appropriate for the entrepreneur to contemplate flexibility. We expect the characteristics of "openness" and "visionary" to apply within a context of a resolute determination to succeed.

Further, we must differentiate this flexibility from Logical Incrementalism (Quinn 1980a,b). Quinn, who was principally describing the strategy formation process in large firms, saw that process as an iterative one whereby the strategy-makers evolved a strategy over time. Once a consensus strategy had been reached, it was followed by the organisation. Our emphasis is to raise the nature of flexibility beyond that merely of accepting that it may take some time to reach a consensus, to that of accepting that the future is likely to work out differently to the way that had been anticipated.

Clearly this model is particularly appropriate in highly turbulent environments or those, like oil exploration, where great uncertainties and risks arise. Again, we may suppose there is a cultural block on the acceptance of the possibility of uncertainties so great that they ultimately threaten the continued existence of the organisation. Nonetheless the reality is that the new small business failure rate in the UK is very high (Storey 1994, op.cit.). This approach may not suit the first-time entrepreneur or the "decisive" decision-maker, by which we mean the individual who likes to take action and believes that "actions speak louder than words". Furthermore, it does not suit those situations in which prevarication and delay may lead to downfall or the loss of first-mover advantages.

FIGURE 5 HERE

Butterfly strategy

The "Butterfly" strategy has nothing to do with the butterfly phenomenon associated with Chaos Theory but it can be defined as follows:

a deliberate attempt to experiment with various situations, scenarios or systems with the intention of learning from each instance so as to gain a wider understanding of the general situation.

"Butterfly" behaviour may be random but it is only random in terms of its action and not its intent. What is critical to the definition above is the intention to learn and it is this aspect of the strategy that helps us classify it as deliberate. Accordingly, this form of behaviour combines the phenomenon of the random walk with the concept of organisational learning in order to promote better future performance. Organisations thus need to be organised to learn and may fail miserably in this respect if the systems in place and the techniques they use to promote Organisational Learning are inadequate. It useful to compare this type of behaviour with an evolutionary model of organisational behaviour described by Stacey (1996 pp 340 – 342). This develops Kauffman's concept (1993,1995) of fitness landscapes that can be used to portray the evolutionary process as avoiding the troughs and ascending the peaks of fitness. The implication of this analysis is that the "neat strategy of logically incremental moves" has to be abandoned and instead travel has to be made "in a somewhat erratic manner": it is relevant to question whether this "erratic manner" should really be random or whether it should be purposeful as we suggest. Certainly the aspect of learning is recognised by Stacey: "Systems....that combine order and disorder......are capable of learning faster than those that are purely orderly."(ibid. p 342) Mechanisms through which organisations can learn and manage are fully developed elsewhere in Stacey's text and are outwith the scope of this paper.

Further links between ecological models and business systems have recently been made by Arthur (1996), Moore (1996), Brandenburger and Nalebuff (1997), Hagel and Armstrong (199?), all reported in Lewin (1997). These writings address the issue of innovations which can be perceived to be superior to existing products yet which have "failed". A simplistic "invisible hand of competition" approach might be expected to suggest that competition would ensure that superior new products would always replace inferior existing products. In fact innovations sometimes have to be many times superior to existing offerings to begin to be accepted. Clearly this is an important message for the Entrepreneur - it is not necessarily good enough just to be better; success will depend upon being many times better. The reason for this, it is alleged, is that the innovator (who can be seen as a predator in a biological ecosystem context) enters a complex world of systems and webs. This network of connections between different parts of the web is well established and, even in the absence of aggressive behaviour of existing incumbents to beat off the new competition, it takes time and resources to break it down. This was well illustrated in one firm with which we are familiar which had to give away their products (costing five-figure sums) in order to get drilling contractors to try them out. Alternatively, for some new products, a system of new networks and webs may be a pre-requisite to success; examples include distribution networks for frozen foods and libraries of pre-recorded films for use in domestic video-recording equipment. The circumstances in which these complementary assets contribute to or detract from the profitability of the innovation's originator have been well developed by Teece (1998).

There are two perspectives or contexts for the link between "butterfly" behaviour and entrepreneurship. First from a macro-economic view, the function of the small-firm sector to act as a seed-bed of new ideas has been accepted philosophy since the days of the Bolton Committee if not before. Most UK governments in the thirty-plus years since Bolton have justified the actions they have taken to support the small firm sector on this basis. Further, of course, it fits neatly with an evolutionary model of organisational/commercial change; it is beneficial always to be trying out new ideas (in terms of products or organisational structures) and to see which ones are successful. Of course, there is a danger that some ideas may "come before their time" and a developed conventional wisdom that "idea X" will not work because earlier attempts have failed, may be erroneous at a later time. This also reflects the time-based nature of strategy emphasising further the need for "ideas" rather than "actions".

The second perspective is the micro-economic one where one asks the relevance of "butterfly" behaviour to the individual organisation. This lies at the heart of entrepreneurship; in the sense that entrepreneurship is about "doing something new." In a Schumpeterian way, then, following a "butterfly" strategy demands that organisations should be actively seeking out new ways of doing things. The critical aspect of this, however, is the emphasis on deliberation and learning. The newness is not random but deliberately selected. Organisations seek knowledge about products, markets, suppliers and the general environment. Adopting a Chaotic viewpoint would imply acceptance that this learning process could not be immediately implemented in another organisation (given the differences in the starting conditions) but it would develop a better knowledge of the "patterns" or "structures" that might enable successful implementation in the future.

The "Lottery" Strategy

In the context of business behaviour, we define the "lottery" strategy as follows:

> *experimenting with various situations, scenarios or systems by random selection of actions.*

What clearly distinguishes this form of behaviour from the butterfly is the absence of deliberation and organizational learning. It is arguable whether such a strategy can be considered deliberate, or not, but this merely reflects the ambivalence of many aspects of strategy (i.e. it may, as Mintzberg suggested, be ex-ante or ex-post). For practical purposes, however, it may not matter whether it is deliberate or not.

The decision-maker who follows this strategy recognises and accepts the stochastic nature of the business environment and may use whatever decision-making rules are appropriate. Accordingly it amounts to little more than game playing, knowing that sometimes losses will be made but on occasions, gains might also be made. We can observe this form of behaviour amongst some of the very smallest operators in the North Sea oil industry; they may invest (almost always through an equity sharing partnership with other operators) in individual or a small number of blocks in the hope that oil might be found. To call these "investments" is really a misnomer; it may be more accurate to call them "gambles". From time to time such gambles do pay out but the reality is that 90% of test boreholes drilled in the North Sea have been "dry"!

What links may there be between Entrepreneurship and Lottery Playing? Whilst there is presently no structured evidence on this, we can surmise that in many cases an entrepreneur's first business initiative is likely to be carefully planned and crafted, representing a deliberate attempt to build upon knowledge, skills and expertise learnt elsewhere and to deliver something new in the market. But the serial entrepreneur who creates a number of new businesses in their lifetime may be different. A number of "pull" factors can be seen to potentially contribute to the success of such a strategy - the ownership and access to capital and the prestige and skill networks that are opened up by earlier success are likely to be important. We surmise that the serial entrepreneur may be more likely to indulge in "lottery playing" than others - on the basis that with an established capital base, there is "less to lose". The nature of serial entrepreneurship is, however, open to interpretation. Tacit knowledge of what may work may be better developed in the serial entrepreneur and, if that is the case, the serial entrepreneur's behaviour may be better described as butterfly behaviour.

CONCLUSION

This paper has reviewed three conventional approaches to business strategy, but all of them were found to be inadequate in situations where the future is unknowable. Accordingly they are inappropriate for entrepreneurial small firms who operate in a turbulent environment. Despite this, small firms are required to prepare business plans because without them, external funding would be unavailable. The danger is that, having written a business plan, the entrepreneur's strategic thinking stops. "The plan" is seen either as the strategy or instead of the strategy - perhaps the analogy of a multi-purpose tool is applicable. Instead, we have argued, strategic thinking is an activity which cannot substitute for "a plan" and which is separate from the "planning" activity. The tool is not multi-purpose after all!

Given the turbulent if not Chaotic nature of the business environment, four alternative "meta"-strategies have been discussed which can provide new insights into ways of directing entrepreneurial small firms. Some may choose to adopt a *robust* strategy if survival is a high priority. Others may choose to be *flexible* in the belief that changes in direction may be inevitable given the dynamic nature of technical and other forms of change. Some entrepreneurs may choose a *butterfly* approach, seeking out what works for them and applying their new-found knowledge to good effect. Finally, some entrepreneurs may see their business involvement as a gamble and will behave as if they are playing the *lottery*. We cannot say that any one of these strategies is "right" or "best" for any particular firm or circumstance, just as it is not possible to conclude - in the parlance of Miles & Snow (1978) - that it is right to be a "first-mover" or a "late-mover". Such an approach reflects an attitude of mind in exactly the same way as our four "meta"-strategies do. The generic strategies espoused by Miles & Snow have generated considerable research into management style and performance; the framework presented in this paper provides similar opportunities for researching the management, survival, growth and performance of entrepreneurial small firms.

References

Anderson AR, Atkins MH 2001 Configuration and Reconfiguration- Planning for Uncertainty, *Journal of Entrepreneurship and Innovation Management*, forthcoming

Arthur B. 1996 Increasing returns and the new world of business *Harvard Business Review* July-August p100

Barnard C. 1934, cited in McMahon, D., Carr, J.C., 1999, The Contributions of Chester Bernard to Strategic Management Theory, *Journal of Management History,* vol. 5, no 5, p 228-240

Beaver G, Ross C. 2000 The role and context of strategy. *Entrepreneurship and Innovation*, vol 1 , no 1, pp 23-31

Brandenburger A. & Nalebuff B. 1997 *Co-opetition* Doubleday

Castrogiovanni, G.J., 1996, Pre-start-up planning and the survival of new small businesses: theoretical linkages, *Journal of Management*, vol.22 no. 6, p 801-823

Curran, J., 2000, What is Small Business Policy in the UK for? Evaluation and Assessing Small Business Policies, *International Small Business Journal*, June 2000

Curran, J., Blackburn, RA, 2000, Panacea or White Elephant? A Critical Examination of the Proposed New Small Business Service and Response to the DTI Consultancy Paper, *Regional Studies*, Vol 34:2, pp181-206

Cyert R. M. & March J. G. 1963 A behavioral Theory of the Firm Prentice-Hall, Englewood Cliffs, NJ

Genus A., 1995 *Flexible Strategic Management* Chapman & Hall, London

Gleick, J 1987 *Chaos*, Abacus, London

Gray, C., 1998, *Enterprise and Culture,* Routledge, London

Hagel J. & Armstrong A. 1997 *Net Gain* Harvard Business School Press

Hall, G., 1995 *Surviving and Prospering in the Small Firm Sector*, Routledge, London

Heady E.O.1952 *Economics of Agricultural Production and Resource Use* Prentice-Hall, Englewood Cliffs, N.J.

Hurst, D.K., Rush, J.C. & White, R.E. 1989, Top Management Teams and Organisational Renewal, *Strategic Management Journal*, no 10, p 87-105.

Johnson G. & Scholes K., 1999 *Exploring Corporate Strategy* Prentice-Hall, Harlow

Kauffman S.A. 1993 *Origins of Order: Self Organization and selection in Evolution,* Oxford University Press, Oxford

Kauffman S.A. 1995 *At home in the Universe* Oxford University Press, New York

Lewin R. 1997 It's a jungle out there *New Scientist* 29 November

Lye R., 1994 *Chaos and Decision making* in Jennings D & Wattam S., *Decision Making: an integrated approach* Pitman, London

McGrath R.G. & MacMillan I.C. 1995 Discovery Driven Planning *Harvard Business Review* July-August

McGuinness T, Morgan RE. 2000. Strategy, dynamic capabilities and complex science: management rhetoric vs. reality. *Strategic Change*, vol 9, no 4, pp 209-220

Majone G. & Wildavsky A. 1978 Implementation as Evolution *Policy Studies Review Annual* 2, 103-117

Mason C & Harrison TR 1996 Informal venture capital: a study of the investment process, the post-experience and investment performance *Entrepreneurship and Regional Development* no2 vol. 8 June pp105-125

Miles R.E. & Snow C.C. 1978 *Organizational Strategy, Structure and Process McGraw-Hill, New York*

Mintzberg H. 1987 The Strategy Concept 1: Five P's for strategy *California Management Review*, 30,1, June,11-24

Mintzberg H. 1990 The Design School: reconsidering the basic premises of strategic management, *Strategic Management Journal,* Vol. 11 171-195

Mintzberg H. & McHugh, 1985 A. Strategy Formation in an adhocracy *Administrative Science Quarterly* 30, 160-197

Mintzberg H & Waters J A 1985 Of strategies, Deliberate and Emergent *Strategic Management Journal* Vol 6 257-272

Moore J.1996 *The Death of Competition* Harper Business

Murphy, M. 1996, *Small Business Management*, Pitman, London

Pearce, J., Freeman, E. & Robinson, R., 1987, The tenuous link between formal strategic planning and financial performance, *Academy of Management Review,* no 12, p 658-675

Porter M E, 1987 The state of strategic thinking, *The Economist*, 23 May, cited in Beaver and Ross, 2000

Prahalad C.K. & Bettis R.A. 1986 The dominant Logic: A New Linkage Between Diversity and Performance *Strategic Management Journal* 7, 485-501

Quinn J.B.1980a, *Strategies for Change: Logical Incrementalism* Irwin, Homewood, Illinois

Quinn J.B. 1980b, Managing Strategic Change, *Sloan Management Review* (Summer 1980 3-20

Robinson R.B. & Pearce J. A. 1984 Research thrusts in small firm strategic planning *Academy of Management Review* Vol 9 pp 128-137

Rosenhead J. 1989 *Rational Analysis for a Problematic World* Wiley, London

Schamp T, Deschoolmeester D. 1998, Strategic and operational planning attitudinal changes and the survival and growth of business start-ups revisited, *International Journal of Entrepreneurial Behaviour and Research*, Vol 4, No 2, pp 141-177.

Smith, J., 1998, Strategies for Start-ups, *Journal of Long Range Planning*, vol. 31, no 6, p 857-858

Stacey R, 1993 *Strategic Management & Organisational Dynamics*, Prentice-Hall, London

Stokes, D., 1995, *Small Business Management, An Active Learning Approach*, (2nd edition) DP Publications, London

Storey D. J. 1994 *Understanding the Small Business Sector* London, Routledge

Teece D.J. 1998, "Capturing Value from technological innovation: Integration, Strategic Partnering and Licensing Decisions" *Interfaces*, Vol. 18 May-June pp 46-61.

Thomson, J.L., 1997, *Strategic Management, Awareness and Change*, 3rd edition, Thomson Business

Weick, K.E.,1987, *Substitutes for Strategy*, in D., Teece (ed.), *The Competitive Challenge*, p.25-62, Balinger, Cambridge MA

Weick, K.E., 1995. *Sensemaking in organizations*. London: Sage.

Wickham P.A. 1998 *Strategic Entrepreneurship; A Decision-Making Approach to New Venture Creation and Management* Pitman Publishing, London