Insight or Enigma?: Marketing, Entrepreneurship and Complexity Science

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Abstract: This paper has emerged out of recent and continuing empirical work carried out as part of a doctoral proposal to consider creativity, identity and survival in the micro-business in general and, more specifically, the one-person-business (OPB). Inevitably therefore issues at the core of marketing and entrepreneurship are prominent. Some perspectives from Complexity Science are appealed to in an effort to understand better some of the behavioural patterns encountered in this sector and in the research for this thesis. I will consider what if any insights, applications and further avenues in the study of marketing and entrepreneurship are suggested by reassessing SMEs, micro businesses, the solo self-employed and interpreting their behaviours in terms of complexity perspectives

KEY THEMES

Unfortunately within this limited space it is not possible to do much other than provide a brief sketch of some key issues and highlight relevant areas for consideration. Those particularly interested in Complexity are directed to the general introductions of Waldrop (1992) or Lewin (1992).

COMPLEXITY - THE CONTEXT

In dealing with the entrepreneur we confront the very nature of the organisation and its emergence from the surrounding systems and networks. How can Complexity Science theory assist us in shedding light on some of the idiosyncratic features of many such operations? A number of writers have explored Complexity-related notions and their more detailed underpinnings, relating them to human behaviour and indeed management related areas such as economics (Krugman 1996; Ormerod 1999) and general management (Stacey 1996; Battram 1998). What such writers describe is frequent evidence that the dominant voice in current
management thinking is one which emphasises objectivity, control and individual agency. Accordingly academics have tended to be implicitly and explicitly critical of SMEs and/or their owner-managers for not following this first dominant pattern. By contrast, Griffin et al. describe a different approach building on insights from Complexity Science which emphasises the co-existence of inter-subjectivity, emergence, and de-centred agency (Griffin, Shaw et al. 1998). As we become more aware of such phenomena, words that become more relevant to our sensemaking in this challenging area might include expressions such as ambiguity, indeterminacy, unconsciousness, self organisation, confusion, emotion, ‘taking the pulse’, and similar expressions suggesting openness, exploration, tentativeness and incompleteness. This perhaps does not seem as new as it might.

In fact there is plenty of support in the entrepreneurship literature for the latter approach as it emerges in commonly found behaviours. We should remind ourselves that Mintzberg has described management as essentially a reactive fire fighting process. He portrayed how chief executives whether in organizations large or small spent very short periods dealing first with this and then with that. (For example, he found that 90% of the activities of CEOs in smaller companies lasted less than nine minutes (Mintzberg 1973). He saw little evidence of planning, organising and controlling, in contrast to that management behaviour which the historical literature leads one to expect. Furthermore, chief executives of smaller companies, he found, have even more hectic, fragmented and reactive work patterns than those managing large companies. I have noted that similar reactive responsive behaviours are featured in literature more focused on the SME. Behavioural patterns of the SME which are alleged to be striking, or different from those found in larger organisations, might include: avoid long term plans, contracts and loans; keep the organisation generalist and flexible with fewer rules; ensure informality; minimise paperwork; exploit resources carried by others with an emphasis on networking and mutual support; and finally maintain frequent face-to-face informal discussions (Carson, Cromie et al. 1995). The clearest of contrasts with this might be found within local authorities and public sector bodies, often perceived to be the antitheses of the creative or entrepreneurial organisation.

COMPLEXITY: AN OUTLINE

Perhaps the best known metaphor illuminating Chaos Theory and Complexity Theory is that of ‘the butterfly effect’. Taking the weather as an example of a chaotic system, in theory at least it is possible for a butterfly flapping its wings on one side of our planet eventually to cause a hurricane.
at the other. Thus we have a simple small scale action leading to a major event. However what is so different from previous ways of looking at the action would lie in the belief that the links leading from the apparently insignificant flap of tiny wings to the huge scale of the hurricane are complex, not traceable and in fact not foreseeable. One might add also that within such a non-linear system the feedback is positive, that is, it multiplies strongly in its effects and the outcomes will vary wildly. This interpretation suggests why much market research activity and business plans tend to prove such poor value when attempts are made to use them as predictors.

Of course, another feature of Complex Adaptive Systems (CAS) is that as soon as we begin to try to describe one, we can feel overwhelmed not just by the volume of detail but its dynamics. In describing CASs involving humans, many have resorted to metaphor and analogy, often biological in character rather than the mechanical imagery and vocabulary traditionally used. Our thinking is revealed in the language we create. Use of new terms seems inevitable here and in any organisation or context where we are hoping to see change and development. I have found it helpful in making sense of management and SMEs to draw on metaphor as have Morgan and Perren before me (Morgan 1997; Perren 1996).

Let us consider the term ‘agent’. As with the word complexity, we normally encounter this in the other contexts e.g. of web search engines, in legal language, or in the commercial sector e.g. in the sense of the distributor or reseller. However, in the context of a Complex Adaptive System the word is used in a different manner. Agents in this sense are autonomous and can determine their own behaviour; the term ‘agent’ can be applied to describe a brain cell within the complex adaptive system of the brain; or to an individual consumer within the economy. It could be equally well be applied to an individual firm or an idea.

Agents seek to survive, competing and co-operating within a fitness landscape which they themselves are involved in changing and creating. They can group together, communicating, learning; changing their behaviour individually and collectively; and co-evolving. Porter(1990) among others has emphasised the critical importance of competitive ‘clusters’ in developing and maintaining competitive advantage.
PRINCIPLES OF COMPLEXITY

Goodwin has proposed the following as an initial attempt at establishing some simple base from which to understand complexity science. Complex Adaptive Systems themselves should be founded on a set of simple rules which are powerful mainly in their outputs (Goodwin 1994). His six principles are: rich interconnections; iteration; emergence; holism; fluctuations; and the edge of chaos. I am able here to address only three of the more relevant: interconnections, emergence, and the edge of chaos.

RICH INTERCONNECTIONS

Complex systems are defined in terms of rich patterns of interconnections between diverse components; in the context of a human system, agents might be taken to be people. We are familiar with approaches to relationship marketing and networking that seem to treat the phenomenon rather mechanistically, with an emphasis perhaps on the nodes. But in complexity one of the challenges confronting agents might be to think about the connections between people and what is going on in the relating between them. It is possible to think in terms of conversation itself being a CAS. Agents engaging in a succession of conversations are taking part in something which they are co-creating and which they themselves have the capacity to be changed by. This change could take the form of research, learning or development, for example in the collection of ideas for product enhancements or new product development. Where do individuals find the greatest potential for ideas? Diversity may be particularly important in the potential for surprise.

EMERGENCE

The order that emerges is not predictable from the characteristics of the interconnected agents and can only be discovered as it is created. Here again we are on familiar ground in that the story of many inventions and innovations is one that makes reference to coincidence, luck, and surprise. The recent development of the clockwork radio is a classic example, arguably starting when Trevor Baylis, having finished his library books and being bored on a wet night, switched on his TV and happened to see a programme about AIDS in Africa (Baylis 1999). But of course the development process itself led to the emergence of further surprises, including the final appearance of the product, very far from that of his prototype.
EDGE OF CHAOS

Living systems are most creative, with the greatest potential for discovering order that expresses an emergent property of the whole system when they are living near the edge of chaos. Then they naturally undergo transitions from current order to chaos, from which emerges new order. The implication of this is that we need somehow to manage ourselves and our organisations as far as possible to be neither chaotic nor too rigid and bureaucratic, but somewhere in between, on the edge of chaos. It is here that we may simply experience a sense of tension, discomfort and anxiety perhaps in a sense that we are keen to introduce rules and procedures rather than enduring mess.

IMPLICATIONS

Many consultants, writers and a few marketing organisations are addressing issues arising from complexity, some considering this a revolutionary new paradigm, others expressing bafflement as to how this provides potential for management learning. What then are the implications of these points and what sort of marketing and entrepreneurship activities might be illuminated?

Thoughts include:

Presumably the entrepreneur should seek above all richness in connectivity. We all know that business people do this both consciously and intuitively. There are many avenues, both formal and informal for making contacts, business clubs being one example of formal structures emerging to support networking at various levels and places. Diversity is important here, and may involve taking risks: an experienced networker recalled that the best Christmas parties in his experience had been given by a company that invited some of its competitors along. This was counter-intuitive and surely against some common sense rules: e.g. to exclude competitors – but I would assume the meaning of the success of any such party to lie in the recognition that people had enjoyed themselves exchanging shop talk, jokes and gossip and had left having learnt something. But the simple renewal of contact and fostering of relationships may be the key issue here. People seek a forum where there is a sense of ‘buzz.’

Competition may be supplanted by collaboration. Several agents may cooperate from time to time to allow the business to develop or simply to survive a short-term crisis; or agents collaborate on projects, which they
would not otherwise cope with. For example, one interviewee, a massage therapist, was mulling over what alternative practitioners might complement his practice and provide synergy rather than additional operational problems. He was wary of the problems in finding a colleague to offer a similar service. Similarly, an art tutor was a sole trader following previous concern over the ‘different teaching style’ of his last colleague. Here diversity was assumed to be confusing and would inhibit learning for students.

It should not be surprising therefore that learning could be a function of the personal network established; furthermore, several One Person Businesses (OPBs) indicated that they used their customers heavily as a source of education and guidance in what to do and what not to do. Sometimes the customers take the role of mentor and there may be a conscious attempt to ‘make a customer of your friend and make the customer your friend’

Complexity has been used to highlight distinctions between the formal systems and informal systems. The flexibility provided by communication in the informal or shadow system seems critical for a range of activities - innovation, for example, or subverting inappropriate rules and regulations.

Why do so many people running businesses on the smallest scale seem to be trying out several products and services concurrently? Looked at simplistically, working with a portfolio would seem to be horrendously inefficient, particularly when resources are at a premium. But presumably trying out new ventures has a number of clear advantages: the search for ‘something better’, perhaps in a more dynamic market or with higher margins; finding something new and different to avoid or dissipate boredom. This pattern seems to suggest that owner managers should be encouraged to develop a portfolio of products and services, even for the smallest operation or OPB and then to persist in continual small scale experiment as the most immediate form of market research.

If outcomes are predictable mainly in the short term, perhaps there is more room for experimentation. There ought anyway to be encouragement for a random strategy which simply maximises the number of chances of something occurring, as fish do when they spawn. They unload their millions of eggs in what is apparently the most wasteful of tactics, but one that is effective for them. Randomness might mean trying new activities; a certain investment in suck-it-and-see; of trying something just for the hell of
it. This wastefulness needs courage and some investment in resources, not least in time. One owner manager recalled how a major contract came about as a result of a business card handed out three years earlier, no doubt one of hundreds issued.

Managing psychological states such as anxiety is clearly another key issue in situations of unpredictability. Both fear and hubris must be avoided. Just as under the Roman Empire, generals returning to their victory parade were allocated a slave to remind them that they were mortal, so too, many successful business people talk about having someone who helps them keep their feet on the ground. This may be spouse, friend or some other kind of mentor. After all, if luck and the accidental feature prominently in success stories, we should not be eager to take too much credit ourselves.

It might seem sensible to place more emphasis on tactical or short term planning almost as in ‘the here and now’; for example in short term planning with a focus on strong financial and cash flow management on a weekly or even daily basis. Business plan models as promulgated in textbooks can be misleading here with their emphasis on the month and year. In reality this is a behaviour that is more often demanded by ‘outsiders’ such as stakeholders and financiers, than spontaneously used by the entrepreneurs and owner-managers themselves. Perhaps therefore SMEs that do little formal planning are working in ways that are more appropriate to reality; SMEs ‘do what they do’.

It is clear that some activities have negative effects on all and are to be avoided. Knowledge hoarding, lack of trust and weak relationships were held to be significant factors in the collapse of Barings Bank. Current research by psychologists into behaviours of freelances has shown that a tendency to hoard knowledge is a reaction to short term contracts by major employers in IT and media industries (Hall 2000). Excessive insecurity inhibits innovation and learning and organisations need to consider what policies might be unhelpful in encouraging inappropriate behaviour.

Similarly openness to new ideas while desirable seems a surprisingly difficult principle for most people to hold on to. Many inventors (e.g. Dyson and Baylis) can recite lists of prominent companies which have declined proposals which turn out later to have revolutionised the markets concerned. Resistance in the form of ‘not invented here’ (NIH) seems a spectacularly common phenomenon.
Strategies of government agencies aimed at stimulating entrepreneurial activity should be regarded cautiously if not with scepticism. Such bodies tend to be comparatively risk averse and rule bound.

Complexity is a challenging notion for us all. While efforts are being made to apply insights from it to the growth and management of organisations, it appears to offer no clear blueprints or panaceas. By emphasising the reality of chaos in the market place, training consultants have reported that managers have sometimes become quite angry. The implication is that unpredictability is disturbing, new ways of thinking are hard to take on board, and few of us like being reminded of the limits of knowledge and the need for constant change.

We forget at our peril the dynamic and unpredictable nature of commercial life, despite all our best efforts to forecast and control. However, Complexity perspectives, with their emphasis on the biological rather than the mechanical; and with it a wide ranging even holistic approach seem ideally fitted to considering the micro business and the self employed.

REFERENCES


