



INVENTION, INNOVATION AND ENTREPRENEURSHIP

Innovation is a much-misunderstood term and “*invention*”, “*creativity*”, “*discovery*” and “*innovation*” tend to be used interchangeably. That confuses the subject because they are not the same thing. Innovation is a broad concept and we prefer to use the term “*innovation process*”. It extends from idea generation right through to the end users’ purchases and experiences. Because according to leading authorities, the success of innovation should be measured by the wealth (profit) it generates, the innovation process will include market entry and development. (See article at end on this subject by Theodore Levitt). The confusion is exacerbated when we overlay entrepreneurship. Is innovation part of entrepreneurship or is entrepreneurship part of innovation? Are they simply different words for the same thing?

Definitions are Ambiguous and Confusing

Despite falling into two reasonably distinct schools (economics and sociology), definition of innovation remains ambiguous, even within and across the same school (INNOCULT, 2006) and key words are variable and always problematic (Gartner, 1985). Definitions vary from the simple to the technically complex. At one end is Theodore Levitt’s pragmatic “*Creativity is thinking up new things. Innovation is doing new things.*” At the other end of the scale is Cook & Memedovic’s (2003:4) comprehensive definition:

“... all activities of the process of technological change: problems of awareness and definition, the development of new ideas and new solutions for existing problems, the realization of new solutions and technological options, as well as the broader diffusion of new technologies.”

Meanwhile, according to Rank, et al (2004:518):

“Creativity, innovation, and initiative are psychological processes that facilitate the transformation of individual work roles, teams, and organisations into desired future states.” That sounds remarkably like what might be considered entrepreneurship!

Stages of the Innovation Process

Whichever definition we consider, the one commonality is that the innovation process is made up of multiple stages. In fact the literature establishes as many as 13 stages of the innovation process but two in particular are of paramount importance in this discussion – *initiation* where ideas emerge, things are invented/discovered, problems solved etc, and *implementation* where wealth is created and captured. Initiation is the process of engaging in and supporting new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological processes. Implementation is the development, sale and adoption of those new products, services and processes to achieve entry to new or existing markets with new or existing products or services with the aim in this context, of creating new value and wealth/prosperity. Arguably Kiwis’ mental

models have the greatest bias of any culture towards the initiation end of the initiation-implementation continuum.

Innovation is a Psychological and Social Process

Although we often think of the innovation process as a technical/scientific/engineering one, *“Creativity, innovation, and initiative are psychological processes.”* (Rank et al (2004: 518) and they are also social processes. In other words the innovation process is a function of how individuals and groups of people think (and behave) across the entire business process. It should therefore be analysed, planned and managed from a series of perspectives - science, management, marketing, behavioural economics, psychology, sociology (Razeghi 2008) and even anthropology. Innovation applies to all parts of the business mix, product, process, business model and marketing and in turn to all parts of each of those eg all elements of the “Marketing Mix” – Product, Price, Placement (distribution), Promotion and People.

Distinction Vitally Important

It would be easy to dismiss this distinction as semantics but it is vital because the skills, knowledge, resources and cognition, behaviour and motivations that optimise performance in one are different for the other. We can be confident that New Zealanders are highly “inventive” but that’s not the same as being “innovative”. Unfortunately, it is quite possible to be highly inventive and not turn that into value and business success. The most outstanding example of this is that the inventions used by the British to develop the Industrial Revolution were largely made originally in France. Everyday we see examples of Kiwi inventions and indeed everyday products being turned into value that is not harvested by Kiwi firms or the New Zealand economy. In New Zealand, our economic development efforts are focused on initiation, the stage that we are intuitively good at, and not on implementation where our true weaknesses lay. This makes inherent sense as humans are motivated to think and behave in “zones” where we experience the least cognitive dissonance and that is in the initiation zone.

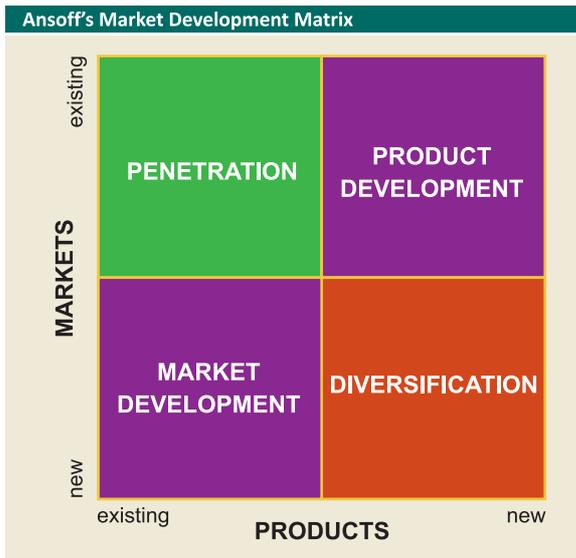
Defining Entrepreneurship

Lumpkin & Dess 1996a define entrepreneurship as (pp136):

“... new entry. New entry can be accomplished by entering new or established markets with new or existing goods or services.”

They thus define entrepreneurship according to Ansoff’s matrix (Kotler, 2003) (See next page).

This is in contrast to the more common but less useful definition of entrepreneurship, *“new venture creation”*, (e.g. Drucker, 1998; Baumol, 2004; Frederick, et al, 2007). The weakness of this definition is shown in N.Z.’s start-up rate being the second highest in the world, but for high growth business



rankings it was 26th out of 36 countries surveyed in the G.E.M. study (Frederick & Chittock, 2006).

So when we think of the implementation phase of the innovation process we find a remarkable parallel between entrepreneurship and innovation or more particularly the implementation phase of the innovation process: Entrepreneurship is *“entering new or established markets with new or existing goods or services”* - Lumpkin and Dess

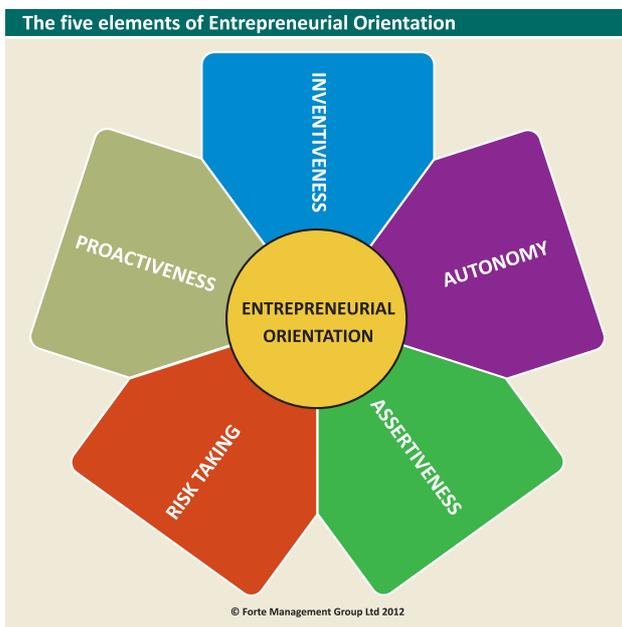
“Innovation is doing new things” - Levitt

“Implementation is the development, sale and adoption of those new products, services and processes” - Forté Management.

We believe that we can safely conclude then that what Forté Management labels the *Innovation Process* is essentially identical to *Entrepreneurship*. An innovator is also an entrepreneur but an inventor is not necessarily either.

Entrepreneurial Orientation

If we want a meaningful framework we need to consider whether the frequent reference to innovation as part of entrepreneurship should in fact refer to invention. As noted above, what we refer to as the “innovation process” can be thought of as essentially synonymous with entrepreneurship. Entrepreneurship can now be thought of as having an initiation stage (invention etc) and an implementation stage (largely post commercialisation). Commercialisation is arguably the bridge linking the two stages and attributes like risk taking are essential enablers of the other elements.



Covin and Slevin’s (eg 1991), Lumpkin and Dess’s (eg 1996a & 1996b) and Lee & Peterson’s (2000) work on *Entrepreneurial Orientation* provides, in this context one of the more useful frameworks. Similarly Timmons and Spinelli’s 2004 matrix is useful in that it locates Kiwis as inventive rather than entrepreneurial. It is then our management capability shortcomings (the inability to create and harvest all the value that is potentially on offer) not any inability to invent things that is the root cause of our performance issues. That is a powerful



clue. MED's *Management Matters in New Zealand-How Does Manufacturing Measure Up?* supports this contention. This links well with our hypothesis about initiation and implementation being curvilinear with a Goldilocks Optimum

Performance zone in the middle. That is, to prosper, an economy must have some sort of balance between its capability and capacity to initiate and to implement. Initiation is substitutable but implementation is not. That is, a firm or economy can acquire its inventions from external sources but it cannot substitute implementation in some form, the stage where value is created and harvested.

On this basis Kiwis on average are inventive but not entrepreneurial. That aligns with Hull's (2003) work for MED in which she concluded that "New Zealand does not have an enterprise culture".

Discovery

Just to add another layer of complexity, there's *Discovery*. Discovery is another story again. Discovery is the finding of things that already exist but had previously been hidden or unknown. This contrasts with invention that is the creation of something that did not previously exist.

References

- Cook C. & Memedovic O (2003) *'Strategies for Regional Innovation Systems: Learning Transfer and Applications'*, United Nations Industrial Development Organization, Vienna, Austria.
- Gartner WB (1985) 'A Conceptual Framework for Describing the Phenomenon of New Venture Creation', *Academy of Management Review*, 10(4):696-706.
- Hull L (2003) *'A Promotion of Enterprise Culture – Theory and Practices Working Paper'*, Ministry of Economic Development, Wellington, New Zealand.
- INNOCULT (2006) *'Deliverable D5: Analysing National Research Systems. Culture & RTD Co-operation'*.
- Kotler P (2003) *'Marketing Management'*, 11th ed, U.S.A., Prentice Hall.
- Lumpkin GT & Dess GG (1996) 'Clarifying the entrepreneurial orientation construct and linking it to performance', *Academy of Management Review*, 21:135-172.
- NESTA (2007) *'Hidden Innovation: How Innovation happens in six 'low innovation' sectors'*, National Endowment for Science, Technology, Arts, (NESTA), London, UK.
- Rank J Pace VL & Frese M (2004) 'Three Avenues for Future Research on Creativity, Innovation, and Initiative' *Applied Psychology: An International Review*, 53(4):518–528.
- Timmons J & Spinelli S, (2004) *New Venture Creation*, 6th Ed, McGraw-Hill/Irwin, New York, USA.

Emeritus Professor Theodore Levitt on the subject of initiation and implementation,

Harvard Business Review - August 2002

Creativity Is Not Enough

by Theodore Levitt

Ted Levitt, a former editor of HBR and one of the most incisive commentators on innovation to have appeared in our pages, takes dead aim at the assumption that creativity is superior to conformity. He argues that creativity as it's commonly defined—the ability to come up with brilliantly novel ideas—can actually be destructive to businesses. By failing to take into account practical matters of implementation, big thinkers can inspire organizational cultures dedicated to abstract chatter rather than purposeful action. In such cultures, innovation never happens—because people are always talking about it but never doing it.

Often, the worst thing a company can do, in Levitt's view, is put innovation into the hands of "creative types"—those compulsive idea generators whose distaste for the mundane realities of organizational life renders them incapable of executing any real project. Organizations, by their very nature, are designed to promote order and routine; they are inhospitable environments for innovation. Those who don't understand organizational realities are doomed to see their ideas go unrealized. Only the organizational insider—the apparent conformist—has the practical intelligence to overcome bureaucratic impediments and bring a good idea to a fruitful conclusion.

"Creativity" is not the miraculous road to business growth and affluence that is so abundantly claimed these days. And for the line manager, particularly, it may be more of a millstone than a milestone. Those who extol the liberating virtues of corporate creativity over the somnambulist vices of corporate conformity may actually be giving advice that in the end will reduce the creative animation of business. This is because they tend to confuse the getting of ideas with their implementation—that is, confuse creativity in the abstract with practical innovation; not understand the operating executive's day-to-day problems; and underestimate the intricate complexity of business organizations.

The trouble with much of the advice business is getting today about the need to be more vigorously creative is, essentially, that its advocates have generally failed to distinguish between the relatively easy process of being creative in the abstract and the infinitely more difficult process of being innovationist in the concrete. Indeed, they misdefine "creativity" itself. Too often, for them, "creativity" means having great, original ideas. Their emphasis is almost all on the thoughts themselves. Moreover, the ideas are often judged more by their novelty than by their potential usefulness, either to consumers or to the company. In this article, I shall show that in most cases, having a new idea can be "creative" in the abstract but destructive in actual operation, and that often instead of helping a company, it will even hinder it.

Suppose you know two artists. One tells you an idea for a great painting, but he does not paint it. The other has the same idea and paints it. You could easily say the second man is a great creative artist. But could you say the same thing of the first man? Obviously not. He is a talker, not a painter. That is precisely the problem with so much of today's pithy praise of creativity in business—with the unending flow of speeches, books, articles, and "creativity workshops" whose purpose is to produce more imaginative and creative managers and companies. My observations of these activities over a number of years lead me firmly to this conclusion. They mistake an idea for a great painting with the great painting itself. They mistake brilliant talk for constructive action. But, as anybody who knows anything about any organization knows only too well, it is hard enough to get things done at all, let alone to introduce a new way of doing things, no matter how good it may seem. A powerful new idea can kick around unused in a company for years, not because its merits are not recognized but because nobody has assumed the responsibility for converting it from words into action. What is often lacking is not creativity in the idea-creating sense but innovation in the action-producing sense, i.e., putting ideas to work.

Ideas Are Not Enough

Why don't we get more innovation?

One of the most repetitious and, I am convinced, most erroneous answers we get to this question is that businessmen are not adequately creative and that they are enslaved by the incubus of conformity. It is alleged that everything in American business would be just dandy if industry were simply more creative and if it would hire more creative people and give them the chance to show their fructifying stuff.

But anybody who carefully looks around in any modern business organization and speaks freely and candidly with the people in it will, I believe, discover something very interesting: namely, there is really very little shortage of creativity and of creative people in American business. The major problem is that so-called creative people often (though certainly not always) pass off on *others* the responsibility for getting down to brass tacks. They have plenty of ideas but little business like follow-through. They do not make the right kind of effort to help their ideas get a hearing and a try.

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