Innovation for Organisations

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Abstract

The model of corporate innovation, as presented on this site, is explained. Any organisation needs a method to capture ideas and provide a readily available source of basic concepts to feed into the corporate innovation process. But it needs more than that. Innovation is essentially a creative activity and requires freedom of thought and action. To accommodate this, a formal framework must be established to channel the activities into corporate assets.

1.   Introduction

In today's business climate, many organisations acknowledge the need for constant innovation. There are many existing models of the innovation process, many of which reside entirely within the confines of the business schools. Some organisations have been consistently good at innovation while others have been less good. One well-known electronics company has consistently produced new product ideas, but been so poor at developing these to meet the needs of the market, that they have often "missed the boat". One problem is that each of the many models of the innovation process is only a partial solution. This paper is based on a study carried out by the author, which comprised:

- the experiences of an organisation used as a case study;
- a review of the popular business school models;
- a review of reports of good practice.

The key element of this paper is that innovation is a complex process. Many organisations consider innovation to be only one part of the process. This paper aims to help organisations appreciate the whole process and proposes a comprehensive model as a means to achieving best practice.

2.   Existing models for innovation

Use has been made of existing models for innovation, based on those available in the literature. Before considering these in detail it is appropriate to say a few words about the traditional concept of a suggestion scheme. Ekval [1] suggests that studies in Sweden have shown the results from such schemes to be one or more of the following:

- shallow;
- non-radical;
- related to a single power base.

On a lighter note, borne out of in-depth practical experience, Townsend [2] dismisses traditional suggestions schemes as practically useless: ideas either become distorted by the Chinese whispers effect or people are unable to express themselves adequately on paper. The following models of the innovation process have been considered for the purpose of this paper.

3. Scanning

The term scanning has been used rather than creative swiping [3] because scanning can take place both within the organisation and externally. Scanning external organisations mainly looks at processes that could improve efficiency, effectiveness, morale or culture in general. Scanning employees is a form of proactive suggestions scheme. This helps to tease out those unlikely ideas that could make all the difference between success and failure. Ideas may be incomplete and require other, complementary ideas in order to become useful (*c.f.* technology fusion). Ideas could be applied to processes, markets or products. Scanning trends and opportunities concentrates on Drucker's sources of innovation [4], namely unexpected occurrences, incongruities, process needs, industry and market changes, demographic changes, changes in perception and new knowledge. Scanning customers is aimed mainly at product ideas. It often takes the form of a partnership approach to incremental innovation, which involves the sales teams and project personnel in direct contact with customers.

4. The Office of Innovation

The main idea extracted from the Office of Innovation [5], together with ideas developed in the innovation processes at 3M [6,7] leads to the concept of an innovation chain:

- Inventor - the creator of an idea;
- Intrapreneur - a person who develops the idea(s) into a useful innovation;
- Champion - responsible for driving the innovation through to implementation;
- Coach - a person who acts as a mentor for the inventor, intrapreneur and champion;
- Sponsor – a senior manager who ensures management buy-in and availability of adequate resources.

The objective is to separate out, where necessary, the functions of inventor, intrapreneur and champion. It is important to ensure that credit is given to all those in the innovation chain.

5. Kaizen

The purpose of Kaizen (See *e.g.* [8]) is to solve a particular problem. It involves planning, brainstorming, trying out ideas in practice and the daily recording of learning points. Each day begins with a short planning session and ends with the documentation of learning points. What actually happens in between depends on the course of events. Thus ideas may be tried out, resulting in modifications or even a brainstorming session to capitalise on the actual outcomes. The objective is that, by the end of the Kaizen event, the team will produced a report, **based on practical experience**, recommending a solution which has been **shown to work**. In the current context, Kaizen events are used in place of pilot projects for implementing process improvement. They typically involve three to six people and generally last for a few days.

6. Idea Screening

Idea screening also appears as filtering in the Office of Innovation (*q.v.*). In this context the test becomes, 'Is this idea suitable to pass on to the next stage of the innovation process?' There might be a number of reasons why not. For example:

- The absence of a suitable intrapreneur;
- The need for technology fusion (*q.v.*);
- The absence of suitable technology or the lack of adequate resources.

The idea screening process could have three outcomes:

- Pass on to the next stage;
- Put the idea(s) on hold in anticipation of suitable developments;
- Return the idea(s) to the stockpile of ideas.

7. Technology Fusion

Many radical innovations require the fusion of ideas and concepts [9]. There is a three-cornered relationship between society, science and technology. No matter how clever or revolutionary the science, it cannot lead to innovation unless appropriate technology is available and there is a social need. An historical example is the television cathode ray tube, which was actually proposed circa 1900. The technology only became widely available after the introduction of the vacuum valve for radio. It was not until the advent of television (originally using rotating discs) and the development of radar that the social/political need emerged. This relationship can be applied to much simpler concepts, such as business processes. Hence technology fusion is likely to be necessary to drive forward any radical innovation.

8. The learning Organisation

Garvin [10] has described a model for the learning organisation. Essentially it depends on a learning cycle, such as double loop learning proposed by Argyris and Schon [11] (see **Figure 1**). The transfer of knowledge is an essential part of this process. The main point is to form the model components into a learning loop that captures ideas and information.
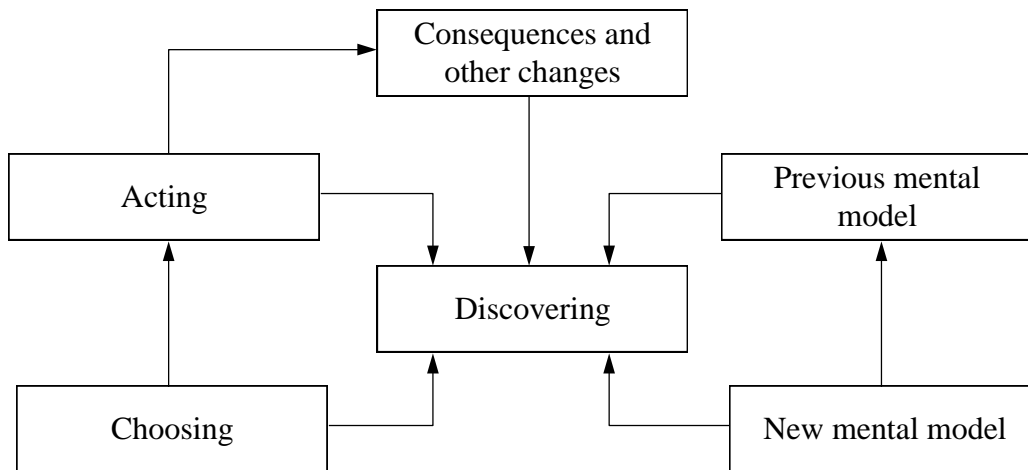
Figure 1: Complex double loop learning (Argyris and Schon, 1978)

Given the current mix of cultures and sub-cultures within many companies, there may be considerable difficulty in gaining acceptance for such a model of a learning organisation. Those with considerable personal power may feel threatened. The temple culture tends to channel constructive information along strictly pre-defined lines and the matrix culture tends to limit the sharing of information to a small circle of confidents. On the other hand, a true learning organisation needs to share all knowledge without fear or favour.

9. The Recycle Bin

This is a new model element, proposed by the author. The concept of the Recycle Bin was introduced to give a clear signal that no idea is a failure. For every idea, there must be some useful application, if only metaphorical. The problem that arises when ideas are not immediately useful is that failure and rejection can be associated with the process of screening (an inevitable consequence of standard suggestions schemes). Both the Recycle Bin and the screening process require good access to up-to-date and accurate data. In the case of the Recycle Bin, it should be accessible to everyone in the organisation in a manner that is user-friendly and easy to search, forming a corporate resource available for scanning. Thus it is conceived that the Recycle Bin will form the largest part of an organisation-wide database. This would be an appropriate way of informing everyone of current progress of ideas and inviting comments. In particular, it would provide accurate information on contributions made by individuals, so that credit can always be attributed where due. In addition, it could serve as a basis for an analysis tool so that the best sources of different types of ideas and drivers of different parts of the innovation process can be identified. This is consistent with the concept of the learning organisation (*q.v.*). A particularly poignant aspect of the Recycle Bin is its capacity to tap into the ability of certain individuals to make connections between seemingly unrelated information. Thus, someone looking to solve a problem in one area may connect two or more items in the Recycle Bin and devise a solution. Unprompted innovation may result from someone connecting ideas and identifying a new product, service or process.

10. Model for corporate innovation

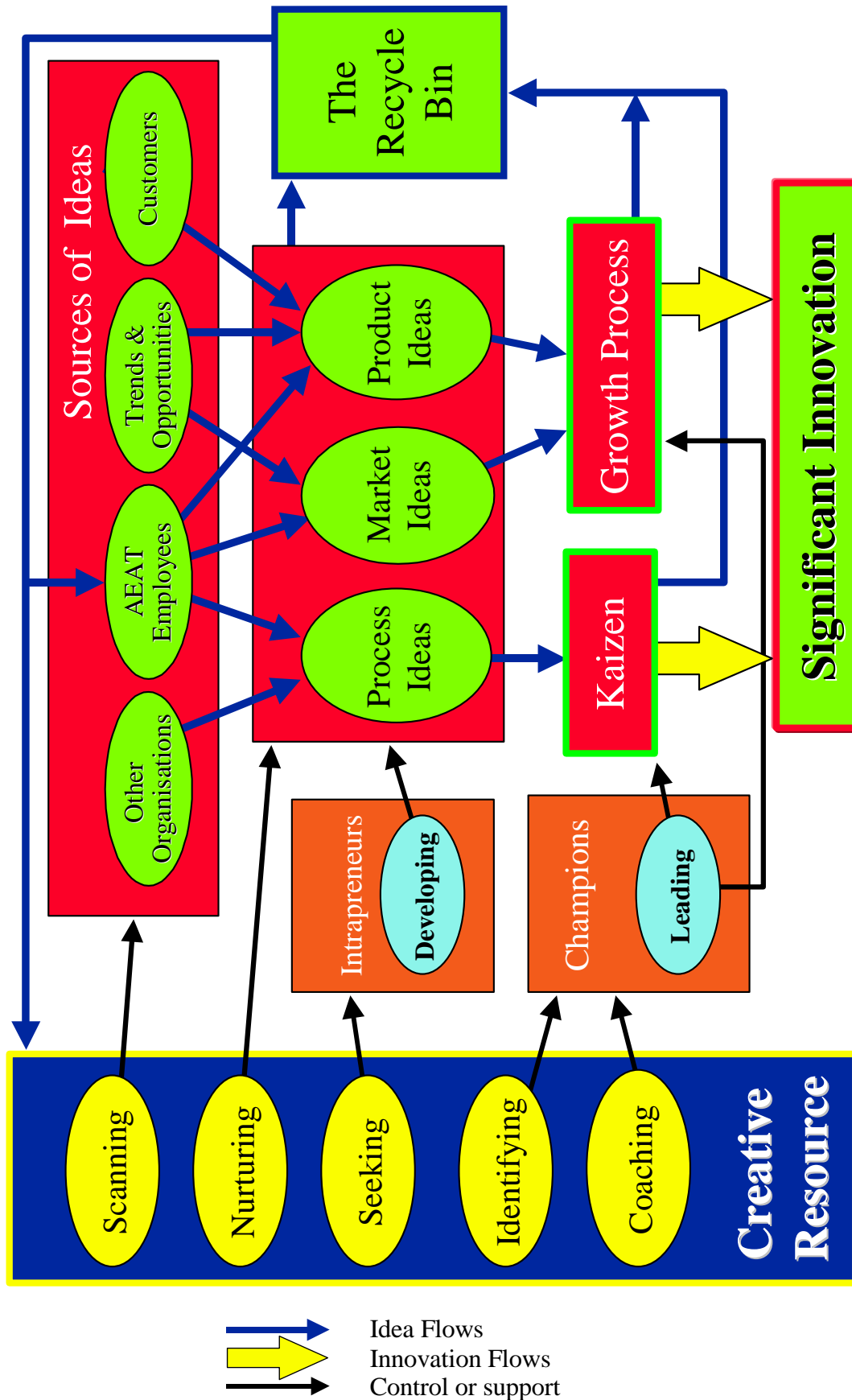A model of the corporate innovation process to include all of the above ideas is shown in Figure 2.

Figure 2:   Model for corporate innovation

This version of the model shows the creative resource as an active element, carrying out the tasks of scanning, nurturing ideas, seeking out intrapreneurs, identifying and coaching champions and also acting as sponsor or contact point for a sponsor (not shown in the figure). In a practical implementation, these roles are likely to be allocated to different people.

In order to ensure adequate levels of recognition and reward, the process should include everyone involved, although levels of commitment may vary throughout the process. Thus the originator of an idea (the inventor) might be highly involved during the early stages of the process, but acting more at a distance during the final stages. In the same way, the intrapreneurs will become involved somewhat later, but could be expected to remain in closer contact during the final stages. The champions and sponsors, who pick up the ideas towards the end, would be expected to have the greatest involvement during the final stages.

One way to achieve the objectives of the model is to incorporate it into a database application as an "Innovation Game". The metaphor of a game is quite appropriate here. It suggests an enjoyable experience, even excitement. It is also associated with winning and achieving, even if the achievement is only to improve on a previous performance. It also suggests risk taking, but where the risk taking is limited to a reduction in performance or the loss of a game. The final analogy is that the most successful games involve a combination of luck and skill.

The whole point of this approach is to ensure that all employees are encouraged to participate and have sufficient stimulation to want to continue participation. One way to proceed is to create an intranet (internal) web site, designed to grab attention and lead any player into a process whereby decisions are made. The pages should be designed to be eye-catching and exciting. The available activities should be any of the following:

- register a new idea, including documentary evidence;
- view ideas already registered;
- develop existing ideas;
- link ideas together;
- offer comments on the game itself;
- volunteer to be a champion or sponsor.

Many of the above could be achieved by simple brainstorming activities and further developed by brainwriting, where individuals vote on the ideas generated by the brainstorming activity. The major disadvantage of brainstorming activities is that they tend to run out of steam after about fifteen minutes. They also involve a small group of individuals otherwise they become unmanageable. There are software products that can act as checklists and prompts. However, the database concept behind The Innovation Game has a greater depth and wider application than all of these techniques.

11.   Conclusions

This paper has described the popular theories of innovation and shown how they can be fused together into a model that offers organisations a practical process for consistent innovation. The model depends critically on bringing different individuals together to form a coherent innovation team. The basis of the innovation process is the availability of an up-to-date database, accessible by all employees.

References

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