An Insider’s Experiences with Environmental Entrepreneurship

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The author argues that most of the normal entrepreneurial laws are valid also for environmental ventures. However, the value-based leadership often rightly associated with environmental entrepreneurs gives a special flavour to these businesses. With hands-on practical experience and an insightful theoretical orientation, the author analyses typical environmental business features and its main segments and presents a typology of ecopreneurs.

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S environmental entrepreneurship something different from ordinary entrepreneurship? The right answer might be both no and yes. Most of the normal entrepreneurial laws, such as the correlation between risk and profit, the right timing for market entry and the need for adequate financial and human capital are valid also in environmental ventures. To be successful, environmental entrepreneurs should move fast, motivate others and take risks as well as anticipate and supply what large numbers of people want. However, the values-based leadership often rightly associated with environmental entrepreneurs gives a special flavour to these businesses.

In this paper, the phenomenon of ecopreneurship is examined from two different sides. The practical side is that I have over ten years of personal experience in the creation and management of environmentally oriented business ventures in Finland. This experience is drawn on to provide many of the hands-on observations cited in the paper. The second side is academic: I also hold a professorship in environmental and quality management at Helsinki University of Technology and continue to support and advise young academic entrepreneurs. All the recent start-ups with which I have been involved also have something in common: a quest for more sustainable products and services.

Owing to the sensitive nature and confidentiality of the information behind the real-life examples, most of the companies and individuals referred to in this paper will remain anonymous.

**Ecobusiness classification**

Environmental businesses can be classified into four different segments. Each has a distinctive character, and their emergence has been influenced by a different combination of drivers. Three main drivers for environmental business and technology can be identified as follows:

- The geographical area of influence, ranging from local, to regional, to global. The balance has shifted from local point-source pollution, such as waste-water treatment, to global and more complex issues, such as climate change.

- Reason for market emergence, either by regulation or by voluntary decisions of market actors. Besides the traditional command-and-control approach, market-based instruments and voluntary actions have become increasingly important.

- Degree of enforcement, varying from high to low. The degree of enforcement differs from country to country and from one law to another.

Thus, I am inclined to propose, on the premises of these drivers, that at least the following four segments can be identified among environmental businesses:

- Nature-oriented enterprises. These are concerned with wildlife habitat preservation, eco-tourism and other close-to-nature concepts that utilise economic and human resources to improve the state of the environment.

- Producers of environmental technology. The production of such technology is driven by legislative pressure on communities or industrial enterprises to reduce their environmental load on water, air and soil.

- Providers of environmental management services. These aim to advise corporations to utilise environmental excellence as a source of competitive edge.
Producers of environmentally friendly products. Such products are differentiated from existing products by their better environmental performance over the product life-cycle.

Table 1 summarises the drivers of these four environmental business segments.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Geographical Influence</th>
<th>Driver Reason for Market Emergence</th>
<th>Degree of Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature-oriented enterprises</td>
<td>Local</td>
<td>Market</td>
<td>Low</td>
</tr>
<tr>
<td>Environmental technology</td>
<td>Local or regional</td>
<td>Regulation</td>
<td>High</td>
</tr>
<tr>
<td>Environmental management services</td>
<td>Global</td>
<td>Regulation and market</td>
<td>Low</td>
</tr>
<tr>
<td>Environmental products</td>
<td>Global</td>
<td>Market</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 1 Drivers of Eco-Business Sectors

Nature-oriented enterprises

The purest segment of environmental entrepreneurs might consist of those trying to make their living through sustainable use of natural resources. Businesses in this segment are often run by individuals with alternative lifestyles, or by otherwise dedicated people to serve good causes. They offer voluntary and local means to practise environmental resource management.

Producers of environmental technology

Public perception of environmental business is often limited to environmental technology, an industry segment that is usually compliance-driven. The tightening of national legislation is the most important driver of these firms. However, the importance of market-based growth drivers is becoming more and more evident in environmental technology businesses. The tightening of international regulation may result in less binding agreements than seen in nationally enforced laws, but it will force global businesses to act more quickly and voluntarily.

A typical eco-business situation with respect to environmental technology is to overestimate the legislative push and to underestimate the market pull, as Case study 1 illustrates.

Providers of environmental management services

Environmental management services achieve their aim by taking into account environmental protection criteria in all the company’s planning, implementation and control activities, aiming at decreasing the environmental load and achieving long-term corporate objectives (Linnanen 1998). This industry segment includes but is not limited to environmental management system consulting, environmental accounting and com-
communication, legal services and life-cycle assessments (LCAs). More recently, environmental management has expanded to cover the triple-bottom-line approach.

Producers of environmentally friendly products

Environmentally friendly products have markets as their driver. The demand for these products is derived from the increasing environmental awareness of consumers. These consumers constitute 10%–20% of all consumers in Western societies and have the willingness to pay an environmental premium in the purchasing price (Peattie 1993). In addition to environmental criteria, this differentiation can be achieved by social criteria, such as the sale of fair-trade products.

Barriers to ecopreneurship

It appears that there are a few critical issues that successful ecopreneurs must address and that conventional entrepreneurs do not. These can be classified into three broad categories: (1) the challenge of market creation, (2) the finance barrier and (3) the ethical justification for existence.

The challenge of market creation

The diffusion of environmental awareness is an important factor in supporting market creation for environmental technology, products and services. The diffusion of environmental awareness and, even more so, a change in consumer behaviour have proved to be slow (Meffert and Kirchgeorg 1993). One potential explanation for this slowness lies in the complicated nature of the sustainability challenge. Environmental management and sustainable development are still fairly discredited concepts in public discourse and it is therefore a natural inclination to require greater proof of these new and provocative ideas than for the view already believed to be true (Sutton and Staw 1995).

One problem in communicating environmental problems is the difficulty in providing clear cause-and-effect relations. Consider the following imaginary example with regard to carbon dioxide emissions:

When you drive a car to a local hypermarket you will add to global carbon dioxide emissions, which contribute to global warming, which in turn might lead to food scarcity.
as the conditions in many productive agricultural areas will decline and, therefore, your food price rises in the long term. And, of course, you should calculate the fuel cost, which has a direct impact on the price of your food.

When you hear the argumentation above for the first time, would you buy the idea and reduce your driving in order to keep your food prices down? Considering the plausibility of the causal relations, probably not. Luhmann (1988) argues that it is not possible for a society to respond even to grave environmental problems until they become public by means of the social communication system. Environmental threats become social threats through communication. This socialisation of threats is also a prerequisite for their elimination.

A newly established company always faces a major challenge: the good business idea needs to be realised in practice. Market creation requires strong belief in the entrepreneur’s own vision and capabilities. The need to create a new market for new products often proves difficult, as Case study 2 demonstrates.

A profound example of the challenges of timing one’s market entry can be drawn from the fresh water trade. By logical deduction, this seems to be set to become a huge market in the future. All the predictions argue that water availability is the world’s most pressing resource issue, as fresh water is growing scarce amid competing human needs (e.g. Doering et al. 2002). The demand is expected to rise, making margins higher, which, at a certain threshold level, will make bulk shipments of fresh water profitable on a global scale. However, it is next to impossible to predict when this threshold level will be achieved.

Case study 2 THE TIMING OF MARKET ENTRY: FUTURE TRADE IN FRESH WATER

When the market creation challenge is combined with high-level capital investments to enable industrial-scale production, small companies often end up facing substantial financial barriers to launching themselves and to growth (see Case study 3).

Nanotechnology is argued to be a potential future market for supporting sustainable development. Staff at a technology centre developed a number of nanotechnology innovations relating to the surface treatment of materials (atomic layer epitaxy). The methods provide significant eco-efficiency potential in several areas of application (e.g. through extension of product life). The business potential was recognised, resulting in a spin-off company from an existing corporation. However, this company had hard times during its first years of existence. The capital investments required were high, and there was no existing market. Finally, a couple of industrial companies that were potential users of this new surface technology in their products decided to acquire minority stakes in the company. This simultaneously gave the company a more solid financial ground and created a market channel.

Case study 3 THE CHALLENGE OF MARKET CREATION AND HIGH START-UP COSTS: NANOTECHNOLOGY

The finance barrier

On the one hand, environmental entrepreneurs with drive and ideas often find it difficult to find investors who share their objectives and ideals. On the other hand, people interested in direct investment in environmental businesses experience difficulties in finding the enterprises they can believe in and support. Many environmental companies
seem to know little about the investment community, and many investors believe that ecopreneurs lack knowledge about the realities of financial markets and fail to grasp the investor’s interests. Whether these prejudices are justified or not, they create an obstacle to placing and obtaining capital (IISD 2002).

Many ecopreneurs express the need for a period of product development to reach a market breakthrough that is longer than the period sought by typical venture capitalists, who may seek to exit their investment after two to three years. This may be not enough for eco-innovations to become commercially viable. As a result, environmental venture capital is marginal. Randjelovic et al. (2002) have estimated the size of green venture capital to be around 0.1% of mainstream venture capital. One venture capital executive put it quite bluntly:

The environment may be a successful screening criterion to find possible growth companies, but after that it does not influence [investment] decision making. The problems and solutions are found from three areas: management, management and management.

In my experience, it is difficult to sell investors a novel business concept containing positive environmental arguments. Stubbornness is needed to beat the resistance to change (see Case study 4).

Case study 4

A recent start-up company aimed to replace the distribution chain of the high-school textbook market by re-using books. The business was especially interesting because of the high profit margins and its effectiveness in reaching the customer with accurate provision of books. The company’s core success factor is an information system that is designed to gather the data as to where, when, what and how many books can be acquired and are needed for the lessons for the next term. According to this information, the correct items are taken to schools and the trading is organised through bookstore-like trading events. The customer benefit is a significantly lower price combined with a better service. However, the raising of finance for the company proved to be a difficult task as there was no prior example of this earning logic. This raised doubts among venture capitalists. After several unsuccessful approaches, a group of private investors were able to provide the needed €0.5 million finance for the company to roll out the business to cover Finland.

Now, the concept has good prospects for future expansion both abroad and into other products with similar features. An international survey made by the company has shown that the United Kingdom, Germany, Spain and many other countries are possible markets, where the opportunities to leverage know-how and information systems are frequent.

Case study 4 OVERCOMING RESISTANCE TO CHANGE: THE RE-USING OF TEXTBOOKS

Case study 4 indicates an important trend. An emergent channel for ecopreneurs to raise venture capital is the stock of high net worth investors (‘business angels’) who seek sustainability-related investment because of their environmental and social beliefs and the understanding of the potential double dividends (Randjelovic et al. 2002).

The ethical raison d’être

Financial and market considerations are essential to all entrepreneurs. Therefore, maybe the most distinctive feature of many eco-businesses is their explicitly expressed ethical reasoning. This has positive and negative effects on the business and its corporate governance. The ethical dimension is a major issue to take into account when mainstreaming environmental businesses and innovations.
On the positive side, most of the ecopreneurs I have met are highly committed to their business. Their reason for running an enterprise is not solely to make money but involves also a willingness to make the world a better place in which to live. This personal commitment also increases their marketing credibility and trustworthiness as business partners.

Another issue is that sometimes this willingness to serve good purposes even exceeds the desire to make money. Eco-businesses are indeed measured by multi-dimensional success criteria, many of them being non-financial. The combination of fact-based and value-based issues linked with various impact levels—from the individual level up to a global level—leaves room for great diversity of performance indicators and makes it difficult to define success. Integration of the financial and the ecological perspectives has proved to be difficult, if not impossible. The current lack of clarity of sustainability criteria leads to the conclusion that ‘good business’ is continuously open to multiple interpretations.

It is also possible to identify negative issues relating to an ethical raison d’être. First, a quest for ethical excellence complicates management. For example, recruitment and outplacement decisions are never easy, but they might be even more difficult in values-led enterprises. In these enterprises, people coming in should naturally be talented and productive but they must also show an ability to commit themselves to the world-improving value base. Then, if the company faces a need to reduce its workforce, firing people will be difficult, as there will be a tendency to take into account a wider variety of factors than would be the case if the decision were based solely on rational reasoning.

Second, many of those companies with a high ethical profile seem to resemble non-profit associations more than business organisations in their governance and decision-making. A somewhat surprising link can be found between established family enterprises and environmental enterprises. Mustakallio (2002) identifies family business characteristics to have (1) a low mobility of shares and controlled ownership and (2) an emotional dimension, with mixed self-interested and altruistic behaviours. Most of ecopreneurs share these two characteristics.

The link between financial-sector values and ecopreneurial values deserves special mention. It is sometimes unclear whether the entry of venture capitalists into eco-businesses is solely a positive phenomenon. Too often, blind money-making intentions overrule the ethical orientation that is one of the positive features of many ecopreneurs (see Case study 5).

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**Case study 5**  
VENTURE CAPITALISM AND ECOPRENEURS: THE SMALL PRINT THAT COMPROMISED THE ETHICAL VISION OF THE FOUNDERS OF AN ENVIRONMENTAL MANAGEMENT SOFTWARE COMPANY

A PROVIDER OF ENVIRONMENTAL MANAGEMENT SOFTWARE APPLICATIONS offers holistic solutions to its customers' environmental management challenges by using web-based technology, automating basic routines encountered in environmental management, such as data collection. The business concept of this company is a lucrative mix of environmental management and information technology, and the company’s initial start-up finance was easily raised. Unfortunately, it soon transpired that the investor selected was interested only in the human capital of the young entrepreneurs, not in developing the company itself. Soon after the start-up stage, the investor announced a plan to employ these entrepreneurs directly. The company may still prove to be a market and financial success, but it will happen at a high ethical price. In this case, the young enterprise and its founders being forced to abandon their original vision and values by strict contractual policy and by overuse of negotiation power was an unwanted side-effect imported from the financial community.
Developing a typology of environmental entrepreneurs

Several definitions of ecopreneurship can be found in the literature. Some of them have a rather limited scope. For example, Anderson and Leal (1997: 3) define ecopreneurship as ‘entrepreneurs using business tools to preserve open space, develop wildlife habitat, save endangered species and generally improve environmental quality’. Schuyler (1998) provides a more generic definition by stating that ‘the term ecopreneurs has been coined for entrepreneurs whose business efforts are not only driven by profit, but also by a concern for the environment’.

Taking into account the considerations outlined in the above discussion, ecopreneurs can be classified according to two criteria: (1) their desire to change the world and to improve the quality of the environment and life, and (2) their desire to make money and grow as a business venture. These two dimensions seem to be independent. The first dimension of pursuing the ‘good life’, like sustainability, is an acceptable goal as such but it is primarily an inefficient business concept. It is often argued in management practice that the more focused the business idea, the better it is in terms of commercial success. The second dimension emerges from a reasonable assumption that economic success factors are no different in ecobusinesses than they are in any other business. Successful ecopreneurs are expected to move fast, take risks with prospective gains, motivate others and to anticipate and supply what large numbers of people want.

A typology of environmental entrepreneurs is shown in Table 2. The elements of this typology are analysed in the following sections.

<table>
<thead>
<tr>
<th>Desire to change the world</th>
<th>Desire to make money</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>LOW</td>
</tr>
<tr>
<td></td>
<td>Non-profit business</td>
</tr>
<tr>
<td>LOW</td>
<td>HIGH</td>
</tr>
<tr>
<td></td>
<td>Successful idealist</td>
</tr>
<tr>
<td></td>
<td>Opportunist</td>
</tr>
</tbody>
</table>

Table 2 Drivers of eco-business sectors

Self-employer

An important factor among ecopreneurs who do not prosper financially is an unwillingness to grow. Many of these companies have been born as an alternative to the dream of continuous growth usually found in ‘normal’ business enterprises. Among this type of ecopreneurs there is often a low desire to proceed along the same path and ‘to repeat the same mistakes the capitalist system always does when assuming an infinite and ever-growing system’. It is self-evident that substantial growth will not take place without entrepreneurial drive. It should also be borne in mind that the majority of small-scale entrepreneurs are self-employers. They are satisfied with a level of cash flow that is sufficient to guarantee a reasonable living standard. Out of the four eco-business segments presented earlier, ecopreneurs who advocate nature-oriented business ideas are most likely to belong to this category.

Non-profit business

Among this type of ecopreneur, the distinction between business and non-profit organisational roles is often unclear. They usually have a strong commitment to change
existing business and consumer behaviour. However, good citizenship often overtakes
the quest for high-performance financial results. In other words, these people often have
a high willingness to influence society but a low willingness to grow. A typical example
of such an enterprise is a sustainability think-tank; these tend to remain as fairly small
expert organisations but which have an influence much bigger than their size.

Opportunist

Opportunist are rather recent entrants among ecopreneurs. They typically have a
professional background in traditional industries or they are ‘ordinary’ entrepreneurs
expanding into ecobusiness in order to increase their profits. Driven by pure economic
considerations, their business ideas are not linked to changes in the entrepreneur’s
value base. Opportunists tend to be involved in environmental technology, which
provides the most direct promise for economies of scale.

Successful idealist

Taking the growth leap needs an internal ambition, and sometimes ecopreneurs suc-
sceed. The successful ecopreneur builds a dynamic equilibrium between two virtues:
making money and making the world better. These ecopreneurs could be labelled as
successful idealists. Their desire to improve the world leads to motivation to create
markets. The cycle is enforced by positive feedback from customers and other stake-
holders, providing additional momentum for positive business results and further
strengthening the entrepreneurial motivation. This virtuous cycle is illustrated in Figure 1.

Conclusions and discussion

Environmental entrepreneurs share many features with other entrepreneurs. Similar
to mainstream businesses, the ecopreneurial success cycle is quite unstable and can
easily shift to be a vicious cycle. The less successful cycle does not emerge or collapse
as a result of good intentions but because of failure in the market test. Consequently,
this decreases motivation, paralyses further development of competence and impairs
the ability to serve markets. However, a few differences can be seen between ecopreneurs
and other entrepreneurs. Market creation is even more difficult for environmental
business ideas than it is for non-environmental business ideas, because the financial
community may not yet be mature enough to finance environmental innovations, and
the role of ethical reasoning creates confusion within the mainstream business community.

Perhaps the most distinctive feature of many ecobusinesses is their explicitly expressed ethical reasoning. Being highly ethical brings with it certain difficulties in today's business culture, which is dominated by a mistaken assumption that most decisions are value-free. Luckily, these attitudes are gradually softening as socially responsible investments and other value-driven commercial successes demonstrate the win–win option. Hall (2001: 19) describes a responsible entrepreneur in the following terms:

The popular thinking was that to succeed one must be tough, selfish and ready to do whatever it takes to beat the other side... to the contrary, many entrepreneurs who are nice, decent people build better relationships and, in turn, accomplish great things for that very reason.

There is also one other factor that helps partially explain why the creation of environmentally driven markets is difficult. The barrier arises from the inherently different logic between academia and the business community. Companies and their managers often expect some kind of prescriptive recommendations to be drawn from research. Entrepreneurs tend to look for specific examples of successful management and an inventory of success stories as well as suitable tools for use when one aspires to success. In contrast, academic researchers and policy-makers are more interested in consistent and systematic data on environmental performance and in the drivers of change. What appears as an interesting success story of environmental management for a businessperson might only ‘add yet another case study to the literature’ in the eyes of an academic. Such an imbalance of expectations does not make the complex issue any easier and needs to be addressed.

References


