Seminar Notes On ‘Redirection’.

Abstract: David Lane develops a theory about how agents act, or fail to act, during a process of innovation. He introduces the key concepts of 'ontological commitment' and 'ontological uncertainty' and he asks what we mean by 'uncertainty' and how we might classify the different kinds. He also examines the role of 'stories' in the decision making process.

Enzo Badalotti traces the history of the Olivetti company from the multinational organisation of the 1980's and the subsequent separation into companies serving different market areas. He describes how the 'Office Products' division coped with radical change resulting in a new kind of management with different interaction patterns and information pathways.

(These notes constitute an edited version of the presentations and discussions. Because of sound recording difficulties, only the main presenters are referred to by name).

Director of Complexity Research : Eve Mitleton- Kelly
London School of Economics
Houghton Street
London WC2A 2A

Presenters : David Lane University of Modena and Reggio Emilia
Enzo Badalotti University of Modena and Reggio Emilia

Compiled For The L.S.E.
by Geoffrey J.C. Higgs 21/5/03

Enzo Badalotti

In the 1980s Olivetti was a key player in Europe and a successful multinational company. It had made typewriters since the 1920s, produced PCs from the early eighties, moved to office systems and services in the nineties and also in that period entered the telecommunications sector. However in the early nineties the company was operating in a highly competitive environment, facing a crisis and undergoing continuous restructuring to reduce costs resulting in a reduction of employees from 53,000 to 23,000. In 1994/95 there was a recognition that the company was too large to operate as a single business and the company split into four independent companies for each major activity. Office systems and services was merged with another company creating a sizeable player in services world-wide. There was a PC division and the telecommunications unit was growing as a start-up. Office products were spun off as a new company as it was still producing cash and so valuable, but considered rather outdated in the nineties. This division with about 4000 people and a revenue of about a billion euros was not so far away from the technological revolution in that Olivetti had over a five to seven year period developed a key technology for ink jet printers. There were in fact only four players world-wide with this technology, characterised by a very fast change of the features of the product. Whereas at the start the life cycle of the product was close to three years this decreased in the last two years to eighteen months and in the last year was shortened to something like six to nine months. After that time the product was too old and out of the market. The key questions I asked myself were: ‘How can I understand what happened to the company and how a company of this size could face this speed of change?’

The office products division now had three kinds of product: ink jet printers, copiers and fax machines, but these and the market for them were characterised by completely different factors. David has been basically talking about start-up conditions. For example, the start-up of telecommunications in what was then called the 'new economy' basically involved a change of business model three or four times in the first two years of life. A typical Silicon Valley start-up at that time would have had from twenty people to one or two hundred and you can manage people interaction and key decision processes easier. Here we had a structure that was world-wide and large dimension. The structure of the company was created with the research and development in Italy, manufacturing in Mexico and Brazil and China. The first thing that became clear to the management was that the range of products had to be simplified. There were ink jet printers, copiers (analogical and laser) and fax machines with a cycle change of one year or less. What is interesting if you look at the characteristics of each of these products: how they are entered into the market and what the market required, it was characterised by completely different factors. The delivery system for copiers, for example, required a completely different capability to that required of ink jet printers and probably completely different from fax machines. The latter is a completely customised product with different standards for different European countries. Each product has its own characteristics and has to be treated by the company in a different way. So there was a different logic in breaking down the product requirements as far as the market was concerned.

To top management it seemed obvious that what was needed was a market driven structure, the identification of key business areas and the creation of independent business units. The basic structure was simply the classic functional structure of R and D, production, planning and sales, inherited from the past. The past management was one with a long history and reputation, but the hierarchical kind of vertical management was difficult to manage from Italy, especially in the case of

Latin America. A full 'strategic gap' analysis by product was made in terms of product level, whether or not there was a difference in requirements for different countries, what was the share of the market, what were the distribution factors and so on. A 'competitive mix' was then decided in terms technical requirements, design and user friendliness, what the time to market cycle was etc. In the case of the copiers it was a joint venture with another company in which a medium level product was characterised by speed of copying though the product was backed with a quality reputation. There was also a long term relationship with dealers for a full range product portfolio and service and technical support.

With the identification of key business areas independent units were created that could be fully committed to the development of the technology but at the same time defined the competitive position and the strategic gap for each product. The management decisions created a certain number of changes that were not planned, creating different mechanisms of interaction and feedback which changed the basic characteristics of the company, but because of the cultural background there was resistance to change. For example if we were deciding the concept of a new product coming to the market, it was basically coming from R and D. That was the profile of the management. Even if you broke up the structure with say a steering committee, the culture was based on technical skill and not accompanied by marketing capabilities and know-how. Some of the feedback from people in the organisation showed that they had a different perception of the reason for the re-organisation. Their first reaction was: 'This is another break-up the same as has occurred before, in order to sell off some parts of the business. And this is only the first stage. They are breaking it up because it is easier to sell to one competitor or the other'. In general the attitude was that what ever is changing will only be worse than what it was before. Why? Because the company had ready undergone seven years of restructuring and every year it had always been the same story - cutting people, cutting costs, always losing money. Thus the feeling was: 'Don't give yourself too much hassle because it isn't worth it or it's too risky'.

There were two competing theories about how to overcome the problems of the company. One was that we had to change faster by investing in new technology because historically we had been the leader for twenty years. The other was that we should wait because some competitor will be buying us. It was not a happy situation. Whereas previously managers were fighting against each other to improve their level of independence, saying 'We don't need your corporate structure. Let us develop and sell the product ourselves'. Now they become much more worried because if the break-up continued, there is a certain level at which they knew they could not survive. The business divisions in the different European countries, at a certain level could not survive such an economy of scale. There was also a lack of candidates to drive change at the local level and managers realised that they didn't have a real know-how about how to deal with the change that had been happening in the market. They were mainly managing dealers so they didn't know their customer very well and at the same time the problems of distribution were growing in some countries. More problems for example in the UK than in Italy, and people in Italy didn't realise the extent of the problem. But in the case of ink jet printers the double effect of product shift towards the consumer and the change in distribution characterised the main market.

In order to overcome these problems one solution was to attract external management with special knowledge in this area. Management had been trying to stimulate change to create an interim structure with committees and different ways of interaction to give more power to some actors for change. At the same time the market was getting stronger and stronger, product cycle was shortening there was competition from a low cost market.

There was a change in the formal communication structure. The previous structure showed a direct connection from top management to four areas (ink jet, copy and specialist printing, supplies and country division) with finance and control and services separate. One year later the formal structure was that there were basically three product units still with the same name but their activities completely different. Purchasing was decentralised. Marketing was outside and split into different activities. This new structure gave the opportunity to hire some people who were at a lower level of seniority but through new interaction brought new ideas into the company. Reconstruction took place under this umbrella and I tried to understand what was happening in this period of change in the basic capability of the company in terms of competitiveness and ability to deliver to certain kinds of market.

The effect in terms of decision process and communication flow was the creation of a set of informal links not only in the organisation but direct to customer or distribution. Also the C.E.O. was now directly connected with the weekly record, with ten major distributors of the four or five main companies. This emerged and was not planned but it happened after some interaction because the people found it useful to get in touch and exchange information and on the basis of these personal relations new connections were explored. This is a long way from decision theory but perhaps closer to a neural network analogy and has emerged from the activity. There was thus a different attribution to the importance of information. One of the key points is that if you look at the requirement you have to see the information system in terms of the reassessment of the internal process of the company and the outside market is completely different. There were some things that were absolutely relevant and potentially available in the company and nobody was looking at them.

There was a direct impact on the key decision processes in terms of price definition, quantity produced and the general product concept. What happened before was that the decision on price was central with monthly reporting. Now the central planning was separated and all decisions about what was the right price for the week was given by the country without consideration of total product sold etc. which was considered as losing time and a losing strategy. There was a direct connection of the C.E.O. with what was happening in his country. Marketing was not defining centrally what to do, but intelligently approving and dealing directly with the C.E.O. What is interesting is that the only strategy that works for a follower rather than a leader of the market is: 'You won't lose money on this product only if you are able to sell all your product within the first six months of life'. If not you will be price cutting by 40 or 50%. So all the logic is driven by deciding market time and price and all the other processes follow from this.

I've been talking about key process and product concept. But these things happen as a result of interaction inside the organisation. Marketing's interaction with production and the outside supplier leads to a set of interactions within a given time frame. Putting together information gives 'rules' for decision on the basis of what is happening at the time. With say, a product life of nine months, the product concept can take up to the twelve months and the production process more than two years. If you are not able to sell in the right way and at the right price within say the first six months you are losing money. What the changes were designed to do was break up the old pattern of interaction. But the 'rules' were 'emergent', not planned by a committee and this gave a far better economic interaction between what happens inside the company and what is happening outside. The previous mechanic of decision was that all the consensual information was collected and planning, logistics, production unit, marketing, communications and services was based on this. But in the case of ink jet printers, there are at least two layers of dealership that condition the view of the overall market. I've been talking about the key process and product concept. With the old structure and a product life of nine months to one year the product concept could take up to the twelve months and all the production process, more than two years.

After the re-organisation has been going on for one year the organisation seemed strangely unplanned, but distributors had a direct connection with the field of activities and with the new consumer marketing. The people coming from large distribution agents were starting to partake in the process of interaction and decision taking. These were things that were not considered relevant before. One area was packaging and product description. Whereas in the past these people were always trying to control now they were partaking in the process. If you try to quantify the restructuring, the management level was down five or six levels, but the main change was emerging structure that arose, not according to a position chart, but from relevant meetings or steering committees or sometimes completely informally. And sometimes from the top management where the interaction was different from before. At the end of the year the company was performing better than before, but the market was down and cost reductions were a priority because there was no more money for re-organisation. But what was interesting was that some of the interaction was becoming hardwired as the 'genetic' of the company. The evolution became more organic and the company in a better position to adapt to a fast changing environment.

We can list the key changes in the new organisation as:

- Different levels of information and interaction patterns were introduced.
- The changes were not determined by top down decisions.
- There was continuous 'bottom up' feedback.
- There were heterarchical level interactions.
- There was continuous redirections and emergence of new interaction patterns.