How to sell uncertain technology?
(Re)Exploring detachments in ANT

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4S -Esocite, Buenos Aires
August 2014
How to sell an agricultural alternative fertilizer, whose qualities are uncertain?

1. French agricultural context
2. Easier to detach customers from concurrent entities
3. A certain kind of attachment: dissolution of technology in a global solution
1. Context and problem

Evolution of agricultural extension in France

• Fragmentation of technical models of production
• Diversification of agricultural extension actors
  – Public, private consultants, inputs supply firms
1. Context and problem

Transformation of farmers’ relationship with inputs

• Public injunctions to reduce use
• Farmer’s willingness to emancipate from supply firms
• Development of “alternative”, ecological inputs
  – Living inputs, stimulants
  – Firms often disconnected from public R&D
• An (good) example: TMCE company
Sol

Solution minéral pour sol :

TMS (sol) : amendement calcique-engrais, régulateur de flore microbienne et de l'évolution de la matière organique dans le sol, permettant d'améliorer sa fertilité (biologique, physique et chimique).
1. Context and problem

TMCE technology

- Inputs for soils, crops, animals
  - Stimulate microbial activity
- Two-fold uncertainty:
  1) Composition kept secret (« core »)
  2) Without mineral phosphorus

- Rapid growth: +80 % sales between 2004-2011
- Choice of a strong field presence
  - Sales representatives trained in agronomy, with a practical link with products
1. Context and problem

**Given:**

- Uncertainty around TMCE’s technology
- Farmers’ willingness to not depend on firms

How do you sell 1) uncertain technology 2) to people who don’t like companies like yours?
• « The economy of qualities » (Callon et al. 2000) :
  « capturing, “attaching” consumers by “detaching” them from the networks built by rivals is the mainspring of competition »

• Attachments (*association, interessement, enrolment, etc.*.) much more described than detachments

• In that case of uncertainty, importance of detachments from concurrent entities
2. Detachment from concurrent entities

Challenge phosphorus’ use, making it a «passage point to avoid” (≠OPP)

«phosphorus will soon be banned. Nitrates are not a pollution problem, but phosphates are, and nitrogen is required, not phosphorus »

«Phosphorus is an activator, it boosts the plant, but also diseases and degradation of organic matter. That's the short term, we are offering you the long term
2. Detachment from concurrent entities

Challenge phosphorus’ use, making it a «passage point to avoid”

Detach farmers from official R&D institutions

«The agronomic reality is that soil is a living environment. (...) And a living environment is not governed by the laws of arithmetic, but by the laws of life »

«It is better to have experience that illuminates than science that dazzles. (...) It is not about micro-plot tests but whole field trials, done by the farmer”
2. Detachment from concurrent entities

Challenge phosphorus’ use, making it a «passage point to avoid”

Detach farmers from R&D and agricultural technical education

Differentiating from traditional actors of extension and inputs sales

“I don't call the coops' staff “technicians”, no I don't call them technicians but sellers, they put pressure on in relation to sales.

«TMCE is a family business, there is no return on capital to consider. This is another philosophy, another idea of agriculture. And that's been written on the trucks for 17 years.
3. Attach customers dissolving the technology

Dissolve product in a global offer including personalized assistance

• Fuzzy frontier between material product and immaterial
• Monitoring on-field (spade))

«I call him as soon as I ask myself a question on anything related to crops, rarely on TMCE. It is part of the product.”

«On the results I'd say it's one-third the product, two thirds the support. I'm not sure that the products works, but this is not the problem.

“The product without the discussion is nothing. And vice-versa »
3. Attach customers dissolving the technology

Dissolve product in a wider change, including new attachments

- Reduction of soil-tillage, of inputs consumption
  «He began by saying what should not be done »

- Pedagogy around soils’ biology
  “All the technicians who visit, they give us a list of crop protection products...
  They never have a spade in the truck, they never talk to us about earthworms!
  (...) TMCE means the observation and return to the land, and to the observation
  of the soil.’

- Dissolve in (natural) time : a long term commitment
  «We are not selling a show! We are selling something that takes longer. We live in a
  society of the image, and the farmer is no exception to the rule. (...) TMCE is not at
  all flashy, it doesn't glitter!"
3. Attach customers dissolving the technology

Dissolve product in an interpersonal relationship and shared convictions

• Attachment often described by farmers as a true conversion

« ‘That was my first jolt in the field. I realized the magnitude of my ignorance about the life of the soil. (…. It was the revelation of my career. (…) With him I discovered everything that happens at the foot of a plant, the mycorrhizae, the importance of ground beetles, etc. We had never heard about it before. »
3. Attach customers dissolving the technology

Dissolve product in an interpersonal relationship and shared convictions

• Attachment often described by farmers as a true conversion
• Fusion of roles between customers and technician:

Customers as best salespeople:
«Once we showed them we could get good results, [the farmers] criticized our competitors! There are even some that chuck them out when they criticize us, or put a TMCE sticker above the barn.

Sellers-customers:
«I would not have gone on the road to talk about it if I had not seen the results at home.’ »

«I say to farmers: in the end how many people are there who come to advise you actually and use the products they sell? I don't know any others. Some advise litres of crop protection products, but they don't use any in their garden, and kilos of fertilizer, but they don't even use one.’ »

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• How to sell uncertain technology?
• Detachments and attachments done beyond the sole artifact
• Symmetrical importance of detachment activity, mentioned in literature but neglected in the literature