Planned Obsolescence of Products: Prevalence, Manifestations, Causes, Remedies

Brussels

14th November 2014

Dr Christian Kreiss
1. Examples
2. The economic logic
3. The role of advertising
4. Impact
5. The role of the economic sciences
6. Who profits?
7. Remedies
1. Examples
Embedded meters (counters) in printers signal „empty“ after 2,500 printouts, although there is toner left for another 5,000 printouts.
Electrolytic capacitor: Underdesigned or located at wrong places (too warm) → causing 2/3 of all defects at flatscreens
Examples

Washing machine: tub made of plastic or steel?

- Steel >20 years possible
- Plastic 3-5 years
Examples

Light bulbs: useful life halved in 1926
Plastic gear in handheld electric mixers
Short cotton fibers in textiles
Complicate/ hinder repairing

Firmly embedded rechargeable battery that cannot be replaced

Glued boxes/ shoe soles

Hooklet can’t be exchanged separately → entire door has to be exchanged

→ raising the cost of repairing

→ we have to buy a new item
Myth or reality?

Resolution of 140 German Repair-Cafés 11th October 2014 in Munich

„Planned Obsolescence is no myth“

„We regularly discover weak points when repairing electric devices and boxes that can hardly or not at all be opened.“
2. The Economic Logic
Causes

Economic Incentives

Advantages:
1. Cost reduction by using cheaper parts
2. Increasing sales (Example: razor/ electric shaver)

Very important constraint: the product deterioration/ degradation must not be noticed by the customer, must be kept secret. GE 1930s: “We are giving no publicity whatever to the fact”. Key question from a marketing point of view:

“How fast can a product get worse without disappointing the customer?” (Journal „Absatzwirtschaft“ Dec. 2011)

Obsolescence- strategy is rewarded by the market
→ Precondition: Market is not transparent
Causes: Economic Incentives

- Secret product degradation
- Hidden price increase
- Example electric shaver: price 100 Euro, expected useful life: 2,000 shaves $\rightarrow$ price per shave 5 Cent
- Expected useful life 1,600 shaves (-20%) $\rightarrow$ price per shave 6.25 Cent
- Price increase of 25%!
- $\rightarrow$ profits up 100% or more!
- $\rightarrow$ very strong, irresistible incentive!!
Intransparent markets:

Entering a shopping center for electrical devices:
1. What’s my expected lifespan? How often can I be used?
2. Can I be repaired (glued, screwed construction)?
3. Are there spare parts available after three years?
4. How much will my spare parts cost?
5. How expensive will it be if I am repaired by a technician after three years?

→ What is my usage price (price per usage)?
→ No idea! TCO unknown
→ How to switch product? Choose competitor?
Intransparent markets:

People in Europe on average own around 10,000 products, of which about 50 electrical devices

→ you easily lose track
The role of the engineers

Coincidence?

Product data management software:
Designing engineers: Product Lifecycle Management
Computer Programs allow to determine the planned useful life of products very exactly

„You can determine the expected useful life down to the week“

→ „Planned useful life“

Example electric drill: useful life of 100 or 10,000 hours available, no design problem

Problem for us: manufacturers don‘t tell us the expected useful life
The role of the designing engineers

Coincidence?

Professional ethics are high, but:
- Cost pressure
- Deadline pressure

→ Premature wear normally **reluctantly accepted**, not **intentionally planned** by engineers

**No general accusation** of the industry or devotedly working development engineers:

Often driven by other forces → **Who is driving?**
Main reason: capital markets, profit maximizing

→ Culprits: Mostly large international corporations

Many medium-sized companies with owner-management produce excellent, long lasting products
Profit maximation

Purpose of products for large corporations:

- Means for generating profit
- Not: providing customer benefit, satisfying customer needs - illusion
- **the end – profit - justifies the means**
- **Examples:** rotten meat scandals/ wine with glycol/ useless beauty creams, vaccinations, drugs etc.

„Planned useful life“ → useful for whom?
3. The Role of Advertising
Advertising: important driver, makes the market **intransparent**

Why so many new models each year?

→ Shortening fashion cycles, lifestyle cycles etc.

The more advertisement the more planned obsolescence
Information content of most spots?

**Aim:** emotional message, no content

46% of Germans consider TV advertising to be 'fairly informative'

→ misperception achieved

Advertising misinforms
„The consumers do want it“

3,000 ad-spots per day

550,000 people employed in Germany

2 m TV Ads in our lifetime =
8 hours every day,
7 days per week,
for 6 years (Lindstrom p.47)

€ 30 bn per year
4. Impact
Prevalence

Swiss consumer protection agency 2013

- Computers, printers, copy machines, internet: 125 notifications
- Kitchen equipment: 57
- Audio, TV and Video: 56
- Telekommunikation: 48
- Household appliances: 47
- Cosmetics: 30
- Clothes/shoes: 17
- Consumer commodities: 11
- Furniture/furnishing: 8
- Vehicles: 7
- Other: 5
“Our big job is to hasten obsolescence”
(Harley Earl, Manager of GM 1920s, Slade, S. 45)

“Sloan did his utmost to find new ways to decrease durability and increase obsolescence.” (Slade, p. 43)

“An article that does not wear out is a tragedy for business” (US- Advertising magazine 1928, SZ 27th Apr. 2013)

„Maximum sales volume demands the cheapest construction for the briefest interval the buying public will tolerate.“ (Vance Packard, The Waste Makers, 1960, p. 104)

“Our whole economy is based on planned obsolescence” (Leading US designing engineer Brooks Stevens, 1958)
Impact

1.4 m washing machines, dishwashers and fridges were sold in 2012 in Austria.

Put in a row: distance Vienna-Strasbourg

Dazu kommen noch 3.5 Mio Unterhaltungs- & 4.5 Mio. Elektrokleingeräte
Germany

- Consumers pay more than 100 bn Euros more than necessary = 7% of purchasing power: 110 Euros per capita per month
- More resources needed than necessary: the energy equivalent of 16-18 large-scale power plants is wasted
- More waste than necessary: over 10 m tons of unnecessary garbage; 5-7 waste incineration plants (out of 70) could be turned off
5. The Role of the Economic Sciences
Economic growth and jobs?

- Abolish planned obsolescence →
- We need to work less →
- No more hand looms or horse-drawn carriage: great! Purpose of technical progress is that we don’t need to work as much and as hard as in the middle ages. PO → back to the middle ages!
- Work is the means, not the end
- 14 additional days of holiday
- Real wages, standards of living rise
- Spectre of unemployment is a myth
Jeremy Bulow 1986: An economic theory of planned obsolescence: In competitive markets planned obsolescence doesn’t exist

4 Basic assumptions underlying:
1) Customers will pay for only the present value of the future services of a product
2) Full information model: Consumers know exactly the expected useful life of the products prior to purchase
3) Firms have no cost incentive to produce shoddy products
4) Customers assume that no low-durability products will be produced

→ Pure ivory tower of science, has nothing to do with reality, but strongly - and wrongly - shapes reality via the media, politics and public debate
6. Who profits?
Who profits?

Losers: approx. 95% of population, environment etc.

Decisive question: Who are the *winners*?

Return on capital ↑

→ Who *owns* the capital?

→ Who are the owners of large companies?
Wealth Distribution USA

Domhoff März 2012

Germany: top 10% own nearly 100% of shares or business equity
Who profits?

Wealth Distribution in Germany

Planned obsolescence means **taxing all consumers** to the benefit of relatively few company owners (**top 1%**) with huge collateral damages

→ Absurd but stable system
7. Remedies
Political Solutions

Consumer friendly laws:

1. Introduce a modified energy label (see arrows)
   a) Planned useful life
   b) How easy to repair?

2. Extension of the warranty period (5y?)

3. Abolish reversal of the burden of proof after 6 months

4. Minimum storage period for spare parts (4y?)
Political Solutions

Reduce Advertising by:

1. Ban on advertising:
   a) no ad campaigns for children (Scandinavia)
   b) no ad campaigns on TV after 8 p.m. (France)
   c) small maximum billboard size (Sao Paolo)

2. Tax advertising (Portugal)
Individual Contributions

Many grass roots initiatives:

- Get informed (e.g. www.murks-nein-danke.de)
- Trend of deceleration (Slow Cities, Slow Food, LOHAS - Lifestyles of Health and Sustainability etc.)
- Trends to recycle (ReUSE, Refurbishing etc.)
- Repair (RepairCafés, online-repair-instructions, open-source-design etc.)
- Sharing models (Collaborative Consumption etc.)
- Regional sourcing

Cheap is sexy? Maybe look beyond the price
Needless consumption

- Joseph Beuys: 90% of our products are either harmful or unnecessary (or both)

How can I do without needless goods and activities?
Thank You for Your Attention!