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What the Banking Industry Can Learn from Automotive

Schmalenbach-AK "Strategieentwicklung und Controlling in Banken"
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At first glance: There is nothing to learn from automotive!



Source: „Modern Times“ with Charly Chaplin und Paulette Goddard, premiered in 1936

And banking is considered to be different, anyway ...

- Cars are physical products (and production is dirty and noisy)
while banking products are clean information
- Cars are standardized mass products
while bank products are tailored to cover individual needs
- Cars have a predictable performance over time
while bank products face external (e.g. market) influence
- Cars are highly emotional products
while choice of bank products is/should be rational

Agenda

1. Learning from automotive: A case study
2. Providing a framework: A structure from the automotive world
3. Applying it to banks: Mastering the skill gap in banking
4. Checking motivation for change: Struggling with the will gap
5. Deriving Conclusions: The case for active positioning

1960: The car with the potentially highest impact on future automotive development

GM's objective:

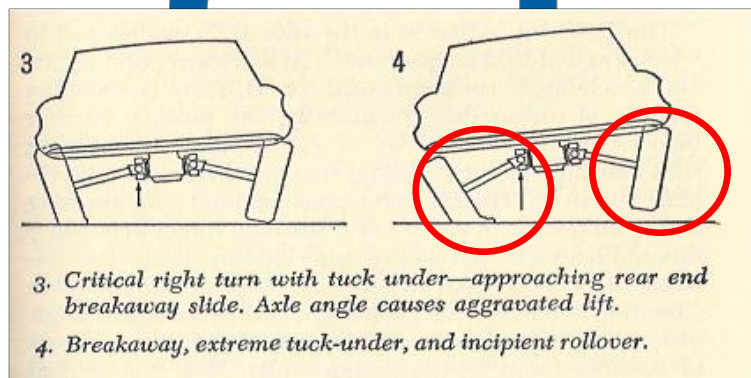
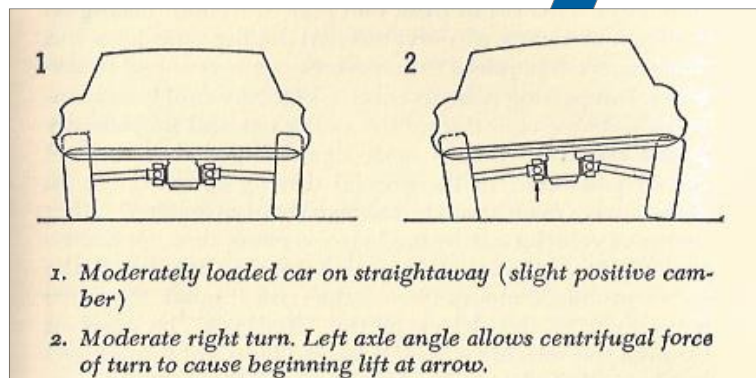
Higher profit margin

- Less weight/ save material
- Chic like a sporty Italian car
- Acceleration like a Porsche 356
- But still size for six people
- Rear drive and rear motor



Tendency to rollover was designed-in and well known internally, but not communicated for years

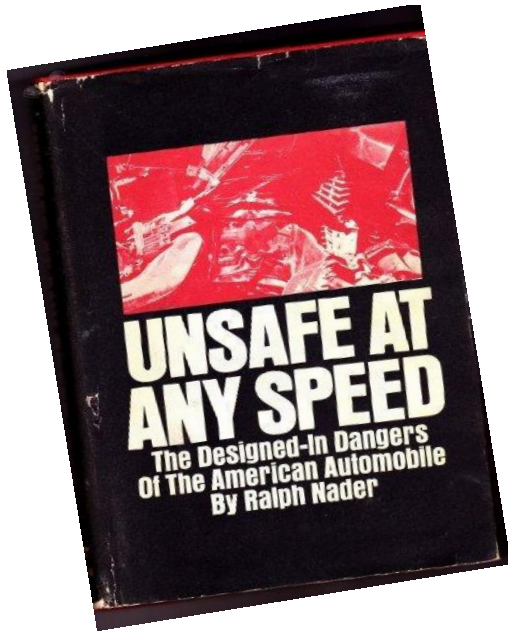
Today rated as
„GM's deadliest sin“



Source: Nader, R.: Unsafe at any Speed, New York, p.31, 1965

Source: Curbside Classic, Nov. 24, 2012

„Corvair“ triggered Ralph Nader's industry-changing initiative



- Ill-designed rear suspension
→ rollovers (Corvair 1960-64)
- Loss of power brake fluid
→ failing breaks (Roadmaster 1953)
- Insistence on drum brakes
→ up to 359 feet stopping distance at 65 mph
- Dangerous transmission shift: from D to R without Neutral
→ „engine powered runaway accident“
- Blinding instrument panels, distortions in windshields,
...→ „driver's views seriously restricted
- ...

Neither security nor high quality was on the agenda of the car industry

*L. Ralph Mason, Manufacturing Manager
Chevrolet Division in an address to plant
supervisors:*

**„I am deeply concerned about the quality we are
building in our cars today“**

Consumer Union summarizes:

- **Test of the 1963 models
purchased at random**
- **32 of 32 cars displaying
troubles in the first 5000 miles!**

*American Engineer, Journal of the National
Society of Professional Engineers, 1963:*

**„It would be hard to imagine anything on such a
large scale that seems quite as badly engineered
as the American automobile “**

Forecast for 1965:

50.000 fatal casualties
to be expected in the US

Over their lifetimes, 50% of all US citizens will
either die or get seriously hurt in car accidents

US legislation was late – but stepped in massively

- 1965: Senate Committee on Traffic Safety holds extensive hearings
- 1965: US President Lyndon B. Johnson: „Unsafe cars cannot be accepted in future“
- 1966: New federal law is approved and signed by the President
- 1967: US Dept. of Transportation is established and starts work

Many elements comparable with Dodd Frank Act:

- *Huge quality problems, ignored for a long time*
- *„Explosion“ only when major systemic effects pop up*
- *Late, but massive reaction of legislation*
- *Solution built on the information content of the products*

The automotive industry was forced into a major re-orientation

- The 1965 legislation was the starting point of an unsurpassed quality and security offensive – with Nader's book as the blueprint of actions taken until 1995
- New waves have come on top in the 1980-ies: pressure to reduce fuel consumption, followed by emission control
- Regulation has probably become the strongest driver of innovation
- However, successful manufacturers have achieved a full integration into their business strategies
- ... while less successful suppliers have disappeared or lost their independence

Most banks have not
achieved this yet

... while several banks
have experienced this!

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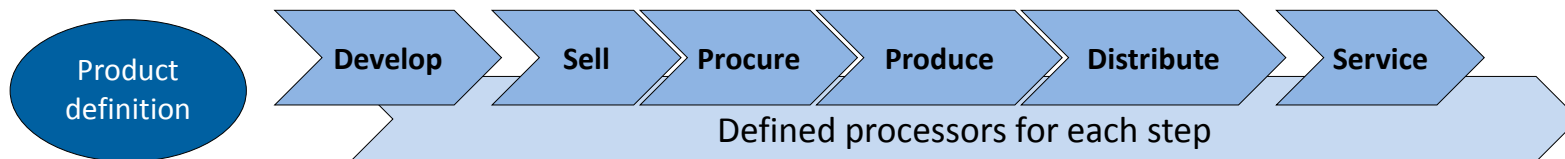
The “3-P” framework from the automotive industry

1. Well defined **products**:

- Customer view: Catalogue (complete, incl. combinations)
- Construction view: Bill of material (BoM)
- Underlying view: List of components

2. Value chain with tightly managed **processes**:

- Builds on product definitions
- Full forward scheduling
- Full backward traceability



3. Clearly assigned **processors**:

- Assigned actors: people, machines, IT
- Increasingly third parties (interfaces!)
- Precise scheduling and quality tracking

... And the fourth dimension: managing innovation over time in stages of development

Stage*	Change driver	Enabling technology	Result
4. (until 2025)	Customer & regulation: „+ get it highly individualized & clean“	Internet of things (sensor controlled and real time IT driven)	The self informed (and autonomous) car
3. (until 1995)	Customer & regulation: „+ get reliable quality and security“	Orga. concepts (Kanban) with extensive measurements, enabled by batch IT	A high quality car from flexible assembly
2. (until 1965)	Customer: „+ get it at an affordable price“	Organizational and logistical concepts (division of work)	A mass produced standard car for a much lower price
1. (until 1920)	Customer: „get a specified product at all“	Mechanization based on steam & gas engines, electrical motor	A working car for a considerable price

*Some people speak of revolutions. De facto, this is a well managed process, therefore more of an evolution.

Example: From *Stage Two* (60-ies Corvair) to *Stage Three* (90-ies Toyota Corolla)

Drivers:

- Customers claim higher quality and security
- Regulation enforces and even drives this claim

■ Change in product structures

- Industry wide taxonomy developed for BoM, with traceable components
- Number of platforms limited to keep complexity manageable
- Customers' choice of options limited

■ Change in process control

- From linear assembly line to group work and Kanban, with decentralized responsibilities
- Fully traceable from the individual component to the final product, through IT support and extensive measurements

■ Change in processors

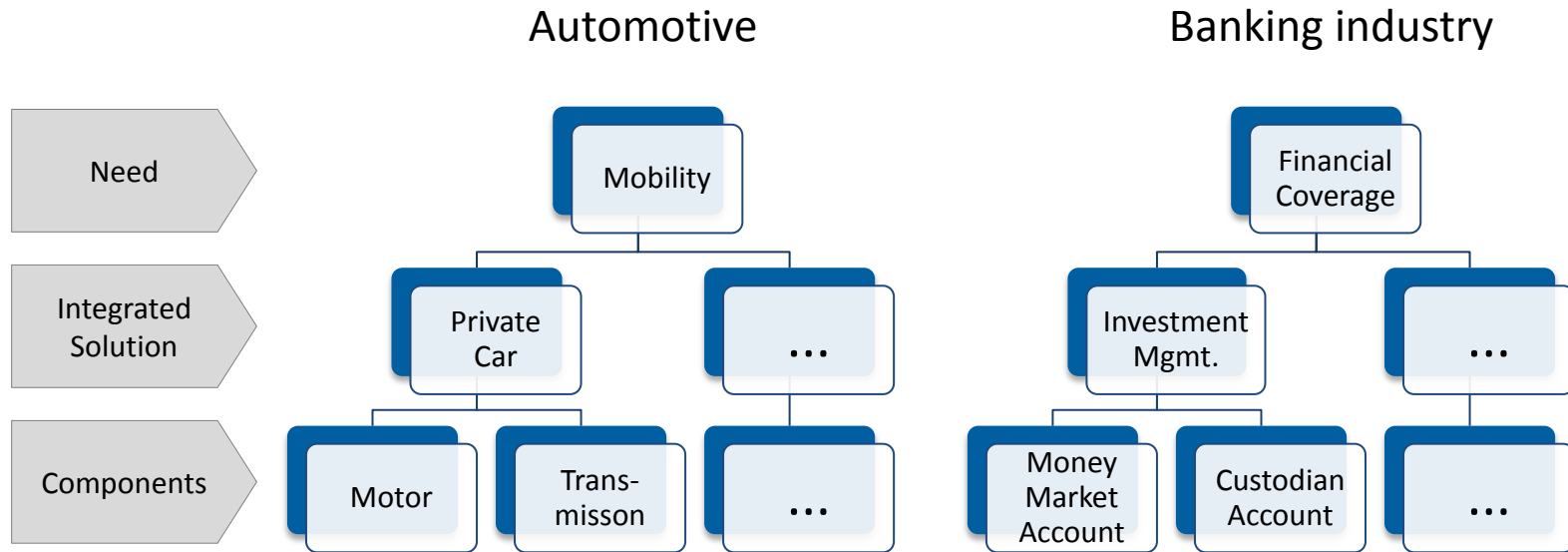
- Machines and IT more standardized, provided by third parties
- Interfaces clearly defined, allowing for extended outsourcing

Very much driven
by Japanese car
industry !

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For product structures, the BoM concept is transferable to banks



Differences in product features exist, but do not prohibit transfer

Dimension	Car	Financial Product
Material	Physical, but <ul style="list-style-type: none">• already >30% information content• Information kept in parallel	Pure information
Initial complexity when delivered	Very high	Low (savings account) to high (investment account)
Need to change product over time (after delivery)	Low (recalls, software upgrades)	Low (saving plan) to high (turnover of assets in investment account)
Service requirement over time	High (regular maintenance to reduce wear)	Low to high (perform transactions on the account, but no wear)
External influence	Low to medium	Low to high (but proper quantification of risk can be done beforehand!)

In summary: easier to control than a typical car!

The concept of processes and processors is transferable as well, with some modifications

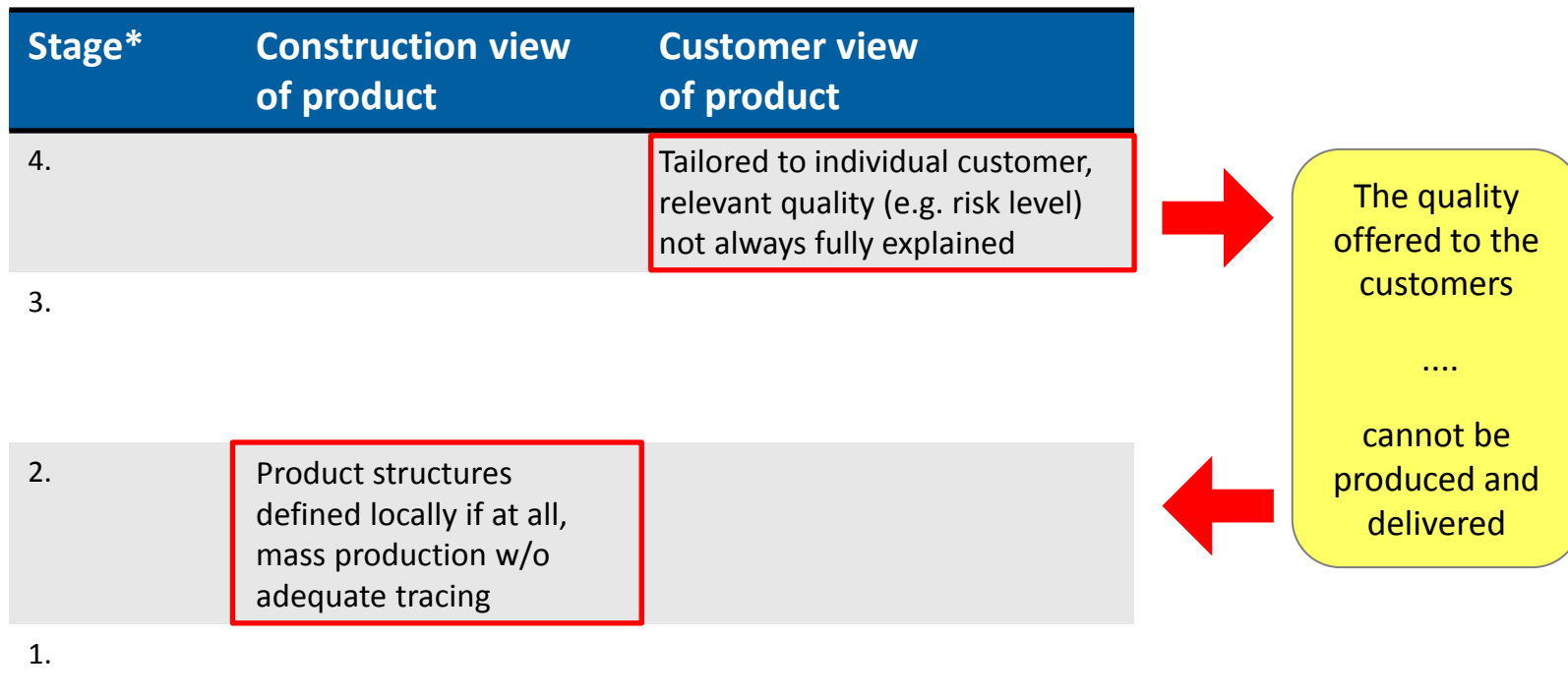
Processes:

- Sequence of steps was historically different in manufacturing (sales at the end), but with the „build to order“ approach, this is changing
- Sales and (initial) production in a bank may run synchronously
– but this may happen in manufacturing as well with 3D printing technology etc.
- For investment accounts, an iterative „return to production“ may be required

Processors:

- Machines + logistics in manufacturing = IT in banking
- For people – especially for advisory – precise scheduling is not common in banking
- As products and processes are often less precisely defined, outsourcing is more difficult

The inconsistent position of banks: *Stage Four* on customer side, but only *Stage Two* in construction



The task for banks: move to *Stage Three* consistently

Stage*	Construction view of product	Customer view of product
4.		Tailored to individual customer, relevant quality (e.g. risk level) not fully explained
3.	Apply industry wide product structures, implement tracing in production	More standardization for customers
2.	Product structures defined locally if at all, mass production w/o adequate tracing	
1.		

The quality offered to the customers is consistent with the quality designed into the product

Product design for *Stage Three*: an approach currently enforced by supervision

- Needed at the core: a **common industry wide taxonomy** with standardised information models for products
- Early preparation by the **Enterprise Data Management Council** (EDM Council), a membership organization of financial institutions, IT providers, regulators
- With the Dodd-Frank Act, the **US Office of Financial Research** (OFR) has been established within the US Treasury, in order to “improve the quality, transparency, and accessibility of financial data and information”*
- Expected Outcome: **reduction in the number of products/ variants** by a factor of 10: from >90,000 to <10,000 in a large bank!

Probably the
(still) most
underrated
change to hit
the financial
industry!

* In Europe, similar objectives are pursued by a set of European Directives

Process design for *Stage Three*: Example: A reference process for investment management



1. Highly modular structure with 9 phases and >100 functions
2. Each phase with a fully defined „check-in“ und „check-out“
3. Phases can be multi purpose (6 phases) or investment specific (3 phases)
4. Functions are sales channel independent
5. Jumps across channels or back/ forth are possible within defined restrictions
6. Well defined „minimum practice“ (as required by supervisions) and „best practice“

Processor design for *Stage Three*: The case for standard software

- Well designed application software will be the necessary core of a sustainable processor structure
- Further development of internally written software seems possible in some of cases
- However, this is the right time to think about the alternative:
a state of the art standard software for core banking
- Of course, this requires software providers to think „ahead of the game“ - which is a real challenge for them!

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One considerable difference in product features

Dimension	Car	Financial Product
Basic deal structure for customer	Give your money – get the car	Give your money – get your money <ul style="list-style-type: none"> • Receive a margin when lent • Pay a margin when borrowed (with margins defined by markets)
Potential to create win-win-situation	Considerable: Manufacturer provides a more attractive car (faster, more convenient, “cleaner” ...), receives a higher margin	Little: Hardly any leeway for provider - higher expected margin requires higher risk
Potential to create win-loose-situation	Little: <ul style="list-style-type: none"> • The relevant KPIs are measured and made transparent by third parties • If not ok: Heavy public pressure to rework immediately 	Considerable: <ul style="list-style-type: none"> • Bank extracts a larger part of margin, leaves less to the customer, and/or • Bank offers higher risk product and stresses earning potential, but plays down the risk



Agency Problem through conflicting objectives and asymmetric information

- Objective: power, influence, securing position, salary
- Bonus System → high premium with good earnings, less/no premium with poor earnings → strive for higher risk

Board

No interest in full transparency

Equity Provider

No interest in full transparency

Depositors

- Objective: high ROE
- Unlimited participation in profits & limited liability → strive for higher risk

- Objective: high returns at no or defined/limited risk
- Returns are limited → risk must be limited as well

For the banks, financial impacts are considerable

Mid term estimate based on experience from a large project on
the future investment management process

Build trust based relationship:

- Open communication on risk versus return
- standard product offers
- “fair” share of earnings

Move to Stage Three in terms
of re-shaping

- product structures
- processes
- processors

Planned earnings	Minus 30% to minus 40%
Planned cost	Minus 20% to minus 30%
Planned CIR (cost income ratio)	Gets Worse (= higher)

Upward potential
only through
higher market
share

But pioneers face

- major investments in advance
- uncertainty on outcome

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In the car industry, products and processes have reached an impressive level of quality and security

Example: VW final assembly line, „Glasshouse factory“ in Dresden



Fatal crashes in the US:

From close to 50.000 in 1965
down to 29.800 in 2010



Fatal crashes in Germany:

From 19.000 in 1970
down to 3.600 in 2012



Key questions for bank shareholders and management

- Should we move forward as a pioneer
 - With brand differentiation such as “passion to perform” or “Genossenschaftliche Idee: Beratung auf Augenhöhe”
 - plus investments to take
 - plus difficult years of transition
 - but with the potential to gain market share and stabilize future earnings ?
- Or is it better to wait, to do what is needed for regulation, and to hope for customers to be patient and leave their business with us for a while ?

If the latter dominates, supervision will see this as a strong case for further regulation!

For banking, there is no happy end yet, but a possible way forward

***Moving to Stage Three consistently will raise efficiency
and quality at the same time***

***With the proposed framework, SKILL GAPS regarding
products, processes and processors can be overcome***

***Closing the WILL GAP, however, will require a long term
perspective, risk taking, and potentially pressure from
regulation***

Thank you for your attention!

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