Industrial trade PART 2

Strategy

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Industrial Trade, Strategy - Differentiation

- Target: monopole position
- Way of action: Differentiation strategy
  - Differentiation is a process a company use to have product or a technology different from its competitors in order to give its brand a value of uniqueness or strong identity. Airbus and Boeing put forward a differentiation strategy even in the very principles of aircraft control: for Boeing, all controls instrumentation should be under the pilot command, for Airbus, the pilot must be oversee by control instrumentation.
  - Innovation is the creation of new products, new processes or the optimization of the production system through the adoption of new technologies derived from R§D.

Industrial Trade, Strategy - Differentiation

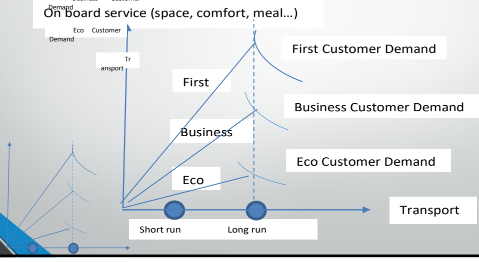
- Segmentation strategy

- To understand the advantage of the differentiation strategy, let focus on the space segmentation in an airliner. By acting on the following characteristics: individual space available, seat comfort, meal quality and service, airliners offer three very differentiated categories associated with three price, the "First" class, the "Business" class, the Class "Eco". They optimize the customers "willingness to pay" on the demand curve by differentiating B to B customers from B to C customers.

- By segmenting the space, it appears that the same transport service is associated with three demand segments with a different willingness to pay the "Service on board".

Industrial Trade, Strategy - Differentiation

Demand segmentation in air flight sector



Industrial Trade, Strategy - Differentiation

- Horizontal Differentiation strategy
- When the products are homogeneous, meaning having the same functions and matching identical needs, industrial companies will distinguish themselves by some subjective characteristics or minor details. We talk then about horizontal differentiation of products

Air flight : when seat matter

… Singapore Airlines is reshaping its eco seats every five or six years ... so that they always smelt like fresh. Beyond four hours flight (Moscow, Egypt, etc.), the quality of the seat is part of the customer benchmark choice.

If you cannot surprise the customer by the service on board, you have no choice than lowering your tariffs "…

Industrial Trade, Strategy - Differentiation

Risk associated with Horizontal Differentiation: Cannibalism

Suppose two categories of customers

- 200 love red products are willing to pay 150 for a red product and 100 for a blue one
- 100 love blue products and are willing to pay 60 for a blue product and 50 for a red one.
- If the company produces both products with a price of 60 for the "blue" and 150 for the "red", red customers will all buy blue products. Indeed, they realize a surplus of 40 by taking the blue product (the difference between their willingness to pay [100] and the price [60]). In this context, the blue product has cannibalized the red product.
- **Too much differentiation can harm the company**

Industrial Trade, Strategy - Differentiation

Vertical differentiation

- Vertical differentiation occurs when goods on a market can be ranked according to their objective quality from the lowest to the highest. In this case, we can say that that one good is better than another by objective parameters such as size, reliability, performance, durability, technological advance etc.

Industrial Trade, Strategy - Differentiation

Innovation game theory

In a duopolistic situation, the issue an industrial firm deals with is its strategic investment in Research and Development (R & D) to innovate. The challenge is important, since innovation ensures, thanks to the patent, a captive market by a monopoly situation. However, if the competitor company also embarks on a race for innovation, the risk is a net loss for the company, the cost of R§D being sunk.

Industrial Trade, Strategy - Differentiation

Example: 2 companies A and B in high quality paints for composite material and in a duopoly situation. They can involve resource in R§D with a probability (p) to find a solution.

p = 0,25	ENTREPRISE B		
ENTREPRISE A		No R§D	R§D
	No R§D	(0 ; 0)	(0 ; - 4)
	R§D	(- 4 ; 0)	(- 4,87 ; - 4,87)

Industrial Trade, Strategy - Differentiation

p = 0,5	ENTREPRISE B		
ENTREPRISE A		No R§D	R§D
	No R§D	(0 ; 0)	(0 ; 2)
	R§D	(2 ; 0)	(- 1,5 ; - 1,5)

p = 0,75	ENTREPRISE B		
ENTREPRISEA		No R§D	R§D
	No R§D	(0 ; 0)	(0 ; 8)
	R§D	(8 ; 0)	(0,12 ; 0,12)

Industrial Trade, Trade Strategy

Trade strategy related to price/ FORD once again

- The genius of Henry Ford : we have a misconception about Ford success: it is commonly believed that the driving force of the Ford T trade success was the assembly line and economies of scale allowing lower prices.
- In fact, the car sold in 1908 at the price of $ 850 saw its sales increase at the same rate as the automobile market. Everything starts with Henry Ford's decision to lower the price by 18% in 1910
- Sales rose then threefold the following year (while the market increased only by 33%) enforcing Ford to adapt industrial to this trade strategy: the assembly line was only introduced in 1913 then the integration of steel production into the finished product in 1920 in the new Red River plant in Detroit. Henry Ford started its trade operation again in 1917 lowering the price to $ 360. Very clearly, the trade strategy enforced the introduction of the assembly line industrial model.

Industrial Trade, Trade Strategy

Trade strategy related to price/ FORD once again

- Ford's business strategy could not be seen as positive as one might think.
- When the affair went wrong in 1918 with a huge drop in sales, Ford met a big problem, the strategy of low prices involving margins too low to react against the competitors.
- The Ford case shows all advantages and risks associated with a long-term price-related sales strategy. It may be relevant in the short term but may be unsustainable in the long term.
- In fact Ford locked himself in a prisoner's dilemma-type game.

Industrial Trade, Trade Strategy

Trade strategy related to price The prisoner dilemma

Trade strategy		*Company 2*	
		High Price	Low Price
Company 1	High price	(**10 €** ; *10 €*)	(**1 €** ; *15 €*)
	Mow Price	(**15 €** ; *1 €*)	(**3 €** ; *3 €*)

Industrial Trade, Trade Strategy

Trade strategy related to product and production

A successful product trade strategy is based on a cohesive industrial output model. Studying this cohesion involves firstly to stress on profit source

Trade Strategy in product and production

Profit source

- 1 - The economies of scale. Profit is built on the process of allocating fixed costs to the volume of the product good, which must be as wide as possible in order to reduce the unit cost.
- 2 - Diversity of supply. The profit comes from expanding demand to all solvent customers by meeting their own expectations.
- 3 - The quality of the product. It allows a higher price or allows to gain market shares.
- 4 - Commercially relevant innovation. It guarantees for a time a monopoly rent.
- 5 - Productive flexibility. It makes it possible to adjust costs quickly to changes in demand.
- 6 - Permanent reduction of costs. It allows to maintain a sufficient margin in all circumstances.

Trade Strategy in product and production

PROFIT STRATEGY related to production model is the driver of trade strategy

- 6 production models
  - The diversity and flexibility model
  - The quality model
  - The bulk model
  - The quantity and diversity model
  - The innovation and flexibility model
  - The permanent cost reduction model

Trade Strategy in product and production

The diversity and flexibility model

- The Company builds its economic model on the diversity of products and along this way on the flexibility of the production process.
- Sources 2 and 5 of profit are targeted and the success of the company is related to how products fit to different demands. models have few common parts.
- The markets are heterogeneous altogether, with different type of customers, markets is set up of separate compartments with different requirements and rules. Markets are segmented, variable and unstable.

- The trade strategy is turned to new demands, new customers and is oriented to convince, inform, identify new customers, new segments and then to develop an adapted approach.
- The products range from wholly different models to simple variations affecting equipment.
- Flexibility is a source of profit if adjusting costs to changes in demand is allowed. Economies of scale are limited by the small size of any line and by limited fixed costs
- Quality comes after the need to provide a specific and distinctive product. Innovation occurs only when it is necessary to answer even more appropriately customer

Trade Strategy in product and production

The Quality model

- The company builds its economic model on the quality of products and services. The source 3 of profit is targeted. Its success depends on the signal attached to its products as "premium" or "luxury" by the industry
- Quality refers to the reliability, finish, materials used, number and type of equipment, style, perfection or mechanical novelty, after-sales service and symbols of social distinction

- The trade strategy is associated with a quality perceived by the client companies as superior to that offered by the competitors. It then increases market share and high prices.
- The number of models is relatively high, the versions and options are relatively numerous stretching up to the customize of the product.
- Innovation is an important distinctive social feature, provided it is compatible with reliability, refinement, comfort and respectability, the main distinctive features of the quality. It is therefore not a conceptual innovation dealing with new uses. Productive flexibility is not an imperative

Trade Strategy in product and production

The Bulk model

- The company set its economic model up on the bulk of production and sales. The profit source 1 is targeted: achieving economies of scale by producing a standard model in an increasing quantity.
- Standardization and integration is the inherent logic of this model. The company that best symbolizes this model is Ford.

- The trade strategy is based on the need to allocate very high fixed costs to the largest number of similar products for as long as possible. Its success depends on scale economies, with diversity limited to the basic model at every segment. No excess in decoration, equipment and finish.
- The search for the greatest level of standardization in production makes it in opposition with an innovation or flexibility strategy.
- The risk associated with lies in the disappearance of the necessary conditions for its success: the Ford experience as mentioned above had been more disappointed than believed, because by getting wealthier, the independent social categories that bought Ford T had turned towards more luxurious vehicles.

Trade Strategy in product and production

The bulk and diversity model

- The company builds its economic model on a mix of economies of scale upon the invisible parts of the product and the variety effect upon the visible parts.
- Sources 1 and 5 profit are targeted. Distinctive products at first sight are created on common platforms. The company that best symbolizes this industrial model is General Motors.

- The trade strategy relies on some kind of production complexity due to the variety of products. Having different products sharing common parts means fast introduction of the major innovations from others rather than taking the risk of innovating.
- Productive flexibility is required for managing change in demand according to different models, versions and options. The quality level is the average one on a competitive market, or slightly higher if the product is in a renewal market.

Trade Strategy in product and production

The innovation and flexibility model

- The company builds its economic model on innovative products and a system that promotes creative and imaginative resource (management and human). Sources 4 and 5 profit are targeted. The most representative company is Honda.
- The Trade strategy lies on the creation of new markets or the ability to go fast penetrating existing markets.
- Innovation is a source of profit only if it is commercially relevant and not immediately copied and improved by competitors. Conceptual innovation is as profitable as risky; So it is inseparable from reactive flexibility. One must be able to quickly abandon a product, or if meeting success, quickly rising production up
- Diversity can be important, but quality can be medium, or even below, as the buyer balances the defects by the satisfaction to have a product fitting its need. The Bulk strategy is incompatible as a limit on fixed costs to easily redeploy the assembly line is required.

Trade Strategy in product and production

The permanent cost reduction model

- The company builds its business model on the permanent reduction of costs. Product policy therefore doesn't matter, as the economic model focuses on product price, reliability and the level of basic equipment. The profit source 6 is targeted. The most representative company is Toyota.

- The trade strategy is associated with lowering the product price and lowering cost. The search for cost reduction is all-round: substitution of capital to labor, waste time killing, relocation.
- The strategic objective is increasing margins for production at the same level of quantity, diversity and quality. The adjustments are sometimes brutal, in financial, material and human resources. Innovation is not necessary and even avoided in view of the risks involve.
- Productive planning is preferred to flexibility