

Competing with Technology and Innovation

Small Business Digitization Initiative (SBDI) - Day 2

By Marc Lijour

January 24, 2017



The registered trademark Linux® is used pursuant to a sublicense from LMI, the exclusive licensee of Linus Torvalds, owner of the mark on a world-wide basis.

Table of Contents

- Introduction to Business Strategy
 - What is Strategy?
 - The External View (where to fish)
 - The Internal View (be the best)
 - Competitive Strategies





The origins of Strategy

• "The Art of War" from Sun Tzu (5-4th century BC)





The origins of Strategy

- "The Art of War" from Sun Tzu (5-4th century BC)
- Greek stratēgia (Office of General)



3 / 43



The origins of Strategy

- "The Art of War" from Sun Tzu (5-4th century BC)
- Greek stratēgia (Office of General)
- Business Strategy becomes popular after WWII and with the creation of Business Schools





The meaning of Strategy

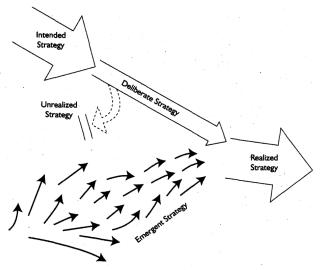
Political Campaign Strategy

Pick a candidate from the recent USA Presidential Election, and comment on his/her strategy.





Different ways to think about Strategy (Mintzberg, Ahlstrand, Ahlstrand, and Lampel, 2005)





The 5 Ps of Strategy (Mintzberg et al., 2005)

• Strategy as a Plan (looking ahead to the future)





The 5 Ps of Strategy (Mintzberg et al., 2005)

- Strategy as a Plan (looking ahead to the future)
- Strategy as a Pattern (looking at where we've been going)





The 5 Ps of Strategy (Mintzberg et al., 2005)

- Strategy as a Plan (looking ahead to the future)
- Strategy as a Pattern (looking at where we've been going)
- Strategy as a Position (placing products on specific markets)



6 / 43



The 5 Ps of Strategy (Mintzberg et al., 2005)

- Strategy as a Plan (looking ahead to the future)
- Strategy as a Pattern (looking at where we've been going)
- Strategy as a Position (placing products on specific markets)
- Strategy as a Perspective (a somewhat personal way of doing things)





The 5 Ps of Strategy (Mintzberg et al., 2005)

- Strategy as a Plan (looking ahead to the future)
- Strategy as a Pattern (looking at where we've been going)
- Strategy as a Position (placing products on specific markets)
- Strategy as a Perspective (a somewhat personal way of doing things)
- Strategy as a Ploy (acting as a mean to an end)





Technology, Innovation, and Strategy

Opportunity

Technological Innovation creates new opportunities for strategic players.





Business Goals

Discussion

What is the main purpose of a business?





Two ways to create Value

- Production
- Commerce (arbitrage)





Most Profitable Industries -by Net Profit Margin (Haden, 2016)

- Accounting, tax prep, bookkeeping, payroll services: 18.3%
- Legal services: 17.4%
- Lessors of real estate: 17.4%
- Outpatient care centers: 15.9%
- Offices of real estate agents and brokers: 14.8%
- Offices of other health practitioners: 14.2%
- Offices of dentists: 14.1%
- Specialized design services: 12.8%
- Automotive equipment rental and leasing: 12.5%
- Activities related to real estate: 12.3%





Estimating Profit

Discussion

Should we start an accounting business?





Estimating Profit

- Accounting Profit = Total Revenue Total Cost
- Net Profit Margin = Accounting Profit / Total Revenue
- Economic Value Added (EVA)
 - = Accounting Profit Cost of Capital Taxes





Estimating Enterprise Value

$$V = \sum_{t} \frac{C_t}{(1+r)^t} \tag{1}$$

- V: Value of the Business
- C_t: Cash Flow at year t
- r: discount rate i.e. weighted average cost of capital (WACC)





Various ways to assess value

• Economic Profit (Milton Friedman: "the one and only one social responsibility of business [is] to increase its profits")





Various ways to assess value

- Economic Profit (Milton Friedman: "the one and only one social responsibility of business [is] to increase its profits")
- Triple Bottom Line (e.g. GRI Reporting) also looks at Social and Environmental value





Various ways to assess value

- Economic Profit (Milton Friedman: "the one and only one social responsibility of business [is] to increase its profits")
- Triple Bottom Line (e.g. GRI Reporting) also looks at Social and Environmental value
- Companies with a good track record of providing shareholder value generally have a mission transcending pure economic profit





Values, Vision, and Mission Statements

Values: what a business stands for (honesty, quality, innovation...),
 can be ethical



15 / 43



Values, Vision, and Mission Statements

- Values: what a business stands for (honesty, quality, innovation...),
 can be ethical
- Vision: what a company wishes to become





Values, Vision, and Mission Statements

- Values: what a business stands for (honesty, quality, innovation...),
 can be ethical
- Vision: what a company wishes to become
- Mission: more concrete, corporate purpose in the near future





Values, Vision, and Mission Statements

- Values: what a business stands for (honesty, quality, innovation...),
 can be ethical
- Vision: what a company wishes to become
- Mission: more concrete, corporate purpose in the near future
- Goals: general targets





Two ways of Achieving Profitability

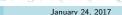
- Operate in an attractive industry
- Establishing a competitive advantage over rivals (better)





How to find the best position to generate profit?





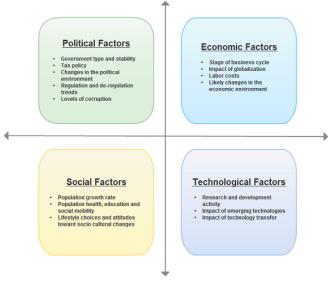
Intensity of Competition

- Minimum (near zero): Monopoly
- More competition: Oligopoly
- Perfect competition: a wide range of players, with limited barriers to enter or to exit





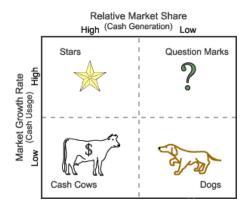
PEST Analysis (Creately, 2012)







BCG Matrix (Source: Management Study Guide)



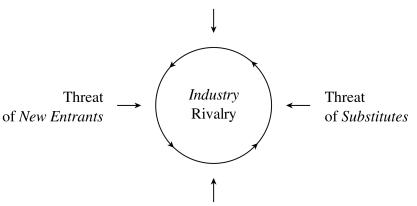


20 / 43



Porter 5 Forces (Art by Denis Fadeev [CC BY-SA 3.0], via Wikimedia Commons)

Bargaining Power of Suppliers



Bargaining Power of Buyers





Marc Lijour Digitization Theory 2

The External View A 6th force to Porter's model

Bargaining Power of Complements

Complements have the power to generate network externalities and winner-take-all markets. Their bargaining power can influence an industry's competitive environment. The more differentiated and rare, the more power. The more commoditized and in excess capacity, the less power (e.g. IBM PC and Windows OS).





Key Success Factors to gain Competitive Advantage

• Firms compete for a share of the industry pie:





Key Success Factors to gain Competitive Advantage

- Firms compete for a share of the industry pie:
 - What do customers want? (Demand side)





Key Success Factors to gain Competitive Advantage

- Firms compete for a share of the industry pie:
 - What do customers want? (Demand side)
 - What does the firm need to do to survive competition? (Competition on the Supply side)





Key Success Factors to gain Competitive Advantage

- Firms compete for a share of the industry pie:
 - What do customers want? (Demand side)
 - What does the firm need to do to survive competition? (Competition on the Supply side)
- Key Success Factors: derive from the above two





Examples of Key Success Factors to gain Competitive Advantage (Grant, 2006)

What do Customers want?		How do Firms survive competition?		Key Sucess Factors		
Steel						
	•	Low price	•	Commodity products, excess capacity, high fixed costs, exit	•	Conventional sources of cos efficiency include:
	•	Product consistency		barriers, and substitute		large-scale plants, low-cost
	•	Reliability of supply		competition mean intense price competition and cyclical		locations, rapid adjustment of capacity to output
	•	Specific technical specs	•	profitability Cost efficiency and strong financial resources are essential	•	Alternatively, high technology, small scale plants can achieve low cost through flexibility and high productivity
					•	Differentiation through technical specifications and service quality
ashion lothing						
nothing		Wide variety of customerpreferences relating	•	Low barriers to entry and exit, low seller concentration, and buying	•	Need to combine effective differentiation with low cost
		to garment type, style, quality, colour		power of retail chains imply intense competition	•	Key differentiation variables are speed of response to
	•	Customers willing to pay price premium for brand,	•	Differentiation can yield substantial price premium, ubt		changing high fashions, style, reputation, and qualit
		stylishness, exclusivity, and quality		imitation is rapid		Cost eficiency requires manufacture in low wage
		Mass market highly price sensitive			countries	

Examples of Key Success Factors to gain Competitive Advantage (Grant, 2006)

What do Customers want?		How do Firms survive competition?		Key Sucess Factors		
Supermarkets						
	•	Low prices	•	Markets localized	•	Low-cost operation require
	•	Convenient location	•	Intensity of price competition		operational efficiency, scale-efficient stores, large
	•	Wide range of products adapted to local preferences		depends on number and proximity of competitors		aggregate purchases to maximize buying power, lo
		Fresh/quality produce; good	•	Bargaining power is a critical		wage costs
		service; ease of parking; pleasant ambiance		determinant of cost of bought-in goods	•	Differentiation requires larg stores (to allow wide product range), convenient location, easy parking





Exercise

Industry Analysis

Analyse the industry that focuses on IT systems addressing the 8 business functions that we'll be studying in this course. Select the top 2 competitors and explain their strategy, as well as Odoo SA's (the editor of Odoo).





How to build and maintain a competitive advantage?





Leveraging Internal Resources & Capabilities

Select a strategy that leverages a firm's key strengths (e.g. Kodak)





Leveraging Internal Resources & Capabilities

- Select a strategy that leverages a firm's key strengths (e.g. Kodak)
- Develop its resources & capabilities (e.g. WIPRO)





Resources ≠ Capabilities (Grant, 2006)



Tangible Intangible Human Technology Physical Reputation Culture Collaboration Motivation



29 / 43

Some Resources (≠ Capabilities) (Grant, 2006)

Tangible Resources	Characteristics	Key Indicators
Financial Resources	Firm's borrowing capacity and internal funds generation determining its ca pacity for investment	Debt/Equity ratio Operating Cash Flow Credit Rating
Physical Resources	Constrain the firm's set of production possibilities and impact its cost position Key characteristics include: size, location, technical sophistication, and flexibility of plant and equipment location and alternative uses for land and buildings reserves of raw materials	Market values of fixed assets Vintage of capital equipment Scale of plants Flexibility of fixed assets





Some Resources (≠ Capabilities) (Grant, 2006)

Intangible Resources	Characteristics	Key Indicators		
Technological Resources				
	 Intellectual property, patent portfol secrets 	io, copyright, trade Number and significance of patents		
	Resources for innovation: research	Revenue from licensing patents and copyright		
	and scientific employees	 R&D staff as a percentage of total employment 		
		 Number and location of research facilities 		
Reputation				
	 Reputation with customers through 			
	brands and trademarks; established customers; the reputation of the fir			
	services for quality and reliability	Percentage of repeat buying		
	 The reputation of the company wit government, and the community 	h suppliers, Objective measures of comparative product performance (e.g. J.D. Power ratings)		
		 Surveys of corporate reputation (e.g. Fortune) 		





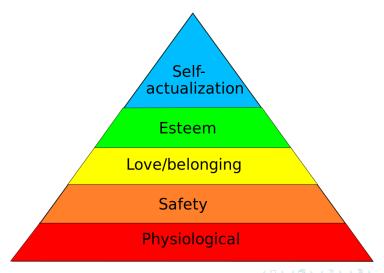
Some Resources (≠ Capabilities) (Grant, 2006)

Human Resources	Characteristics	Key Indicators
	 The education, training and experiences of emplements of the firm 	ployees Educational, technical, and porfessional qualifications of employees
	The adaptability of employees contributes to the contribute to the contributes to the contribute to t	
	strategic flexibility of the firm. The social and collaborative skills of employees determine the capacity of the firm to transform human resour	 Percentage of days lost through
	into organizational capabilities.	 Absentee rates
	 the commitment and loyalty of employees deter the capacity of the firm to attain and maintain competitive advantage 	

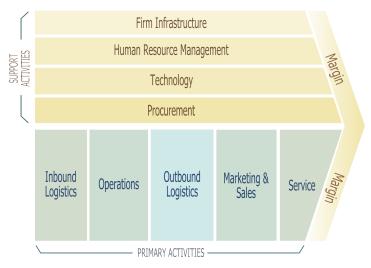




Maslow's Hierarchy of Needs (Art by FireflySixtySeven [CC BY-SA 4.0], via Wikimedia Commons)



Porter Value Chain Analysis (Art by Dinesh Pratap Singh [CC BY-SA 3.0], via Wikimedia Commons)





Rent-Earning Potential of Resources & Capabilities (Grant, 2006)



Practical Steps

- Identify key resources & capabilities
 - Start by identifying the key success factors (demand side)
 - Identify which resources and capabilities are mobilized in relations to these
 - Identify the capabilities in the company's value chain and which resources they draw from (supply side)
- Estimate resources & capabilities across two dimensions:
 - importance
 - strength
- Develop strategy implications
 - Exploit key strengths
 - Manage key weaknesses
 - Deal with superfluous strengths
- Build & Strengthen resources and capabilities



VW as an hypotetical Example -Part 1: Resources (Grant, 2006)

Resources	Importance	VW's Strength	Comments
R1. Finance	6	4	VW's capital investment exceeds operating cash flows. Deb/equity ratio is high compared to the industry
R2. Technology	7	5	Despite technical strengths, VW is not a leader in automotive technology
R3. Plant and equipment	8	8	Has invested heavily in upgrading plants
R4. Location	7	4	Plants in low cost, growth markets (China, Mexico), but German manufacturing base is very high cost
R5. Distribution (dealer- ship network)	8	5	Geographically extensive distribution with special strengh in emerging markets. Historically weak in the US.

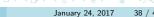




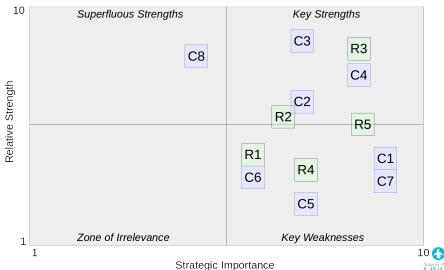
VW as an hypotetical Example -Part 2: Capabilities (Grant, 2006)

Capabilities	Importance	VW's Strength	Comments
C1. Product development	7	5	Traditionnally weak at VW. Major hits are few (e.g. Beetle in 1938, Golf in 1974). Despite recent upgrading, results are still low compared to Toyota.
C2. Purchasing	7	5	Traditionnaly weak -strengthened by senior hires from Opel and elsewhere.
C3. Engineering	7	9	The core technical strength of VW.
C4. Manufacturing	8	7	Problems of inflexibility, and indifferent quality largely resolved during the 90s.
C5. Financial manage- ment	6	3	Has traditionally lacked a strong financial orienta- tion.
C6. R&D	6	4	A comparative strength of VW but becoming less important as technology shifts increasingly to sup- pliers.
C7. Marketing and sales	9	4	Despite traditional weakness in recognizing and meeting customer needs in different national mar- kets, VW has increased its sensitivity to the market, improved brand management and managed its ad- vertising and promotion with increasing dexterity.
C8. Government relations	4	8	Important in emerging markets.





Sample Appraisal (Grant, 2006)



Competitive Strategies

How to play the game?



40 / 43



Competitive Strategies

Porter's Generic Strategies

Competitive Advantage

Differentiation Lower Cost Competitive Scope Cost Broad Differentiation Leadership Target Narrow Focus Target





Strategy -the Big Picture (Mintzberg, Ahlstrand, and Lampel, 2008)

Commodity strategy targets a (perceived) mass market with a single, standardized product

Segmentation strategy targets a (perceived) segment market with a range of products, geared to each of the different segments

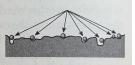
Niche strategy targets a small isolated market segment with a sharply delineated product

Customization strategy (the ultimate in both niching and segmentation designs or tailors each specific product to one particular customer need, such as the architecturally designed home)











42 / 43

rc Lijour Digitization Theory 2 January 24, 2017

Introduction to Strategy

References

- http://valuebasedmanagement.net http://www.real.gold.ac.uk/essayguide/index.html
- Grant, R. M. (2006). *Contemporary strategy analysis* (5th ed.). Malden, MA: Blackwell Publishing.
- Haden, J. (2016, November). The 15 Most Profitable Industries to Start a Business (and the 15 Least Profitable). http://www.inc.com/jeff-haden/the-15-most-profitable-

industries-to-start-a-business-and-the-15-least-profitabl.html.

- Mintzberg, H., Ahlstrand, B., & Lampel, J. (2008). Strategy bites back: it is far more, and less, than you ever imagined. Prentice Hall Higher Education.
- Mintzberg, H., Ahlstrand, B., Ahlstrand, B., & Lampel, J. (2005).

Strategy safari: a guided tour through the wilds of strategic mangament. Free Press.

