

# Competing with Technology and Innovation

Small Business Digitization Initiative (SBDI) - Day 2

By Marc Lijour

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#### Table of Contents

Book of the Day

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





#### Book of the Day

Only 82 pages and CAD\$4.02 on Amazon Kindle Canada —as of writing



Figure: See https://www.slideshare.net/robdthomas/the-end-of-tech-companies (Thomas, 2016)



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The origins of Strategy

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



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The origins of Strategy

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





The origins of Strategy

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





The meaning of Strategy

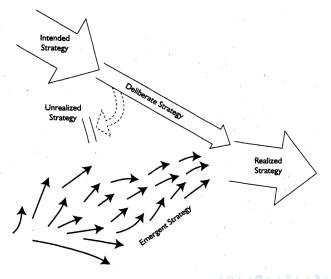
#### Caffeine Boost

Compare the strategy of Starbucks vs. Tim Hortons.





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)





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- Strategy as a Pattern (looking at where we've been going)





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- 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





**Estimating Profit** 

- Accounting Profit = Total Revenue Total Cost
- Net Profit Margin = Accounting Profit / Total Revenue





Estimating Profit to make Strategic Investment Decisions

 Projects should not be funded which return is less than the return on capital

#### Economic Value Added (EVA)

**EVA** = Accounting Profit - Cost of Capital - Taxes

EVA originated at Stern Stewart & Company (New York).





Estimating Enterprise Value

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

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





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Various ways to assess value

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





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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





Values, Vision, and Mission Statements

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Values, Vision, and Mission Statements

- Values: what a business stands for (honesty, quality, innovation...),
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- 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?





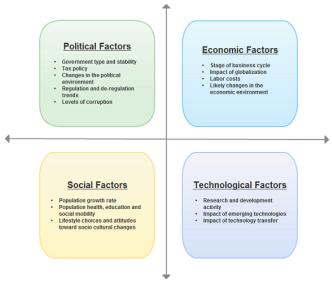
Intensity of Competition

- 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)

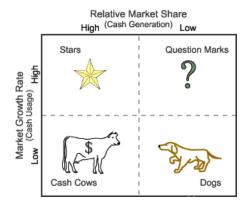




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BCG Matrix (Source: Management Study Guide)

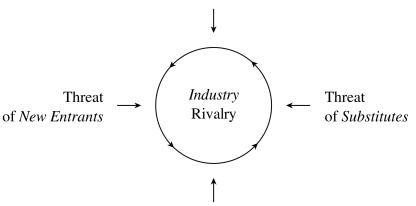






Porter 5 Forces (Art by Denis Fadeev [CC BY-SA 3.0], via Wikimedia Commons)

#### Bargaining Power of Suppliers



Bargaining Power of Buyers



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# The External View A 6<sup>th</sup> 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:





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  - What does the firm need to do to survive competition? (Competition) on the Supply side)



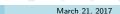


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Key Success Factors to gain Competitive Advantage

- 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	<ul> <li>Commodity products, excess capacity, high fixed costs, exit</li> </ul>	<ul> <li>Conventional sources of cosefficiency include:</li> </ul>	
	<ul><li>Product consistency</li><li>Reliability of supply</li></ul>	barriers, and substitute large-sc competition mean intense price location	large-scale plants, low-cost locations, rapid adjustment	
	<ul> <li>Specific technical specs</li> </ul>	competition and cyclical profitability	of capacity to output  Alternatively, high	
		<ul> <li>Cost efficiency and strong financial resources are essential</li> </ul>	technology, small scale plants can achieve low cost through flexibility and high productivity	
			<ul> <li>Differentiation through technical specifications and service quality</li> </ul>	
Fashion				
clothing	<ul> <li>Wide variety of customerpreferences relating</li> </ul>	<ul> <li>Low barriers to entry and exit, low seller concentration, and buying</li> </ul>	<ul> <li>Need to combine effective differentiation with low cost</li> </ul>	
	to garment type, style, quality, colour	power of retail chains imply intense competition	<ul> <li>Key differentiation variables are speed of response to</li> </ul>	
	<ul> <li>Customers willing to pay price premium for brand,</li> </ul>	<ul> <li>Differentiation can yield substantial price premium, but</li> </ul>	changing high fashions, style, reputation, and qualit	
	stylishness, exclusivity, and quality	imitation is rapid	<ul> <li>Cost eficiency requires manufacture in low wage</li> </ul>	
	<ul> <li>Mass market highly price sensitive</li> </ul>		countries Savoi	

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	depends	Intensity of price competition depends on number and proximity of competitors		operational efficiency, scale-efficient stores, large aggregate purchases to maximize buying power, low
	•	Wide range of products adapted to local preferences				
			•	Bargaining power is a critical		wage costs
		Fresh/quality produce; good 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?



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Leveraging Internal Resources & Capabilities

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





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Leveraging Internal Resources & Capabilities

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





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Resources ≠ Capabilities (Grant, 2006)



## Resources

### Tangible

- Financial
- Physical

#### Intangible

- Technology
- Reputation
- Culture

- Skills / Savoir-faire
- Collaboration

Human

- Collaboration
- Motivation



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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 or Key characteristics include:  size, location, technical sophistication, and flexibility of 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				
	<ul> <li>Intellectual property, patent portfolio, copy secrets</li> </ul>	right, trade Number and significance of patents		
	Resources for innovation: research facilitie	Revenue from licensing patents and copyright		
	and scientific employees	<ul> <li>R&amp;D staff as a percentage of total employment</li> </ul>		
		<ul> <li>Number and location of research facilities</li> </ul>		
Reputation				
	<ul> <li>Reputation with customers through the ov</li> </ul>			
	brands and trademarks; established relatio customers; the reputation of the firm's pro			
	services for quality and reliability	<ul> <li>Percentage of repeat buying</li> </ul>		
	<ul> <li>The reputation of the company with suppling government, and the community</li> </ul>	iers,  Objective measures of comparative product performance (e.g. J.D. Power ratings)		
		<ul> <li>Surveys of corporate reputation (e.g. Fortune)</li> </ul>		





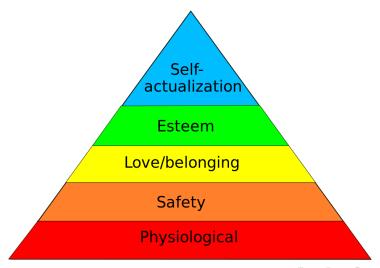
Some Resources (≠ Capabilities) (Grant, 2006)

Human Resources	Characteristics	Key Indicators
	<ul> <li>The education, training and experiences of employed determine the skills available to the firm</li> </ul>	oyees    Educational, technical, and porfessional qualifications of employees
	<ul> <li>The adaptability of employees contributes to the strategic flexibility of the firm. The social and collaborative skills of employees determine the capacity of the firm to transform human resource into organizational capabilities.</li> </ul>	Percentage of days lost through
	<ul> <li>the commitment and loyalty of employees detern the capacity of the firm to attain and maintain competitive advantage</li> </ul>	





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



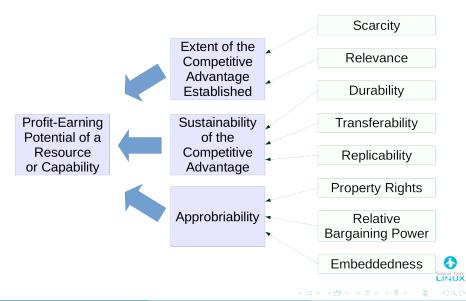


Porter Value Chain Analysis (Art by Dinesh Pratap Singh [CC BY-SA 3.0], via Wikimedia Commons)





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



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#### **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
  - Oeal 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.





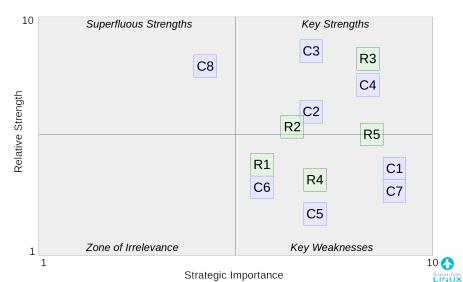
VW as an hypotetical Example -Part 2: Capabilities (Grant, 2006)

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?





### Competitive Strategies

Porter's Generic Strategies

#### Competitive Advantage

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





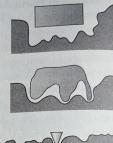
Strategy -the Big Picture (Mintzberg, Ahlstrand, and Lampel, 2008)

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

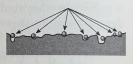
**Segmentation strategy** targets a (perceived) segment market with a range of products, geared to each of the different segments

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)









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## Introduction to Strategy

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