

FEEG 2006 Engineering, Management and Law Introduction to Strategic Management

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Introduction

- We will explore the basics of strategy in helping us to understand the internal and external environment of the firm.
- The firm is the key unit here as most engineering work has a commercial overtone even if it is in partnership with other organisations such as universities and research establishments.

Definitions

- Strategy: from Greek stratēgia, "art of troop leader; office of general, command, generalship"
- broad formula for how a business is going to compete, what its goals should be, and what policies will be.
- A strategy coordinates action to address a specific challenge. (R Rumelt).

What is strategy?

- All organisations have a purpose – strategy helps to articulate this.
- Strategy relates to the pursuit of this purpose.
- There is no one best way.
- ‘It all depends’ – it is very difficult to be prescriptive about what works for any given organisation.
- “A strategy is not a wish list” Professor Richard Wills.

Where does strategy come from?

- Seems like a stupid question – but does it emerge, or is it intended and applied.
 - Intended suggests a top down approach, maybe with compromises surrounding what others in the organisation think. Including product level experience.
 - Emergent: arise “from the complex processes in which individual managers interpret the intended strategy and adapt to changing circumstances”.
- We need to think about the following:
 - What is the difference between theory and practice?
 - What is intended v what happens – especially in terms of accountability.

What is strategy?

- All organisations have a purpose – though it is sometimes difficult to see what it is... Or to see how it is articulated.
- Strategy relates to the vision and the pursuit of this purpose, via the following.
 - What is the Vision & Mission?
 - Objectives and Goals – but are these realistic?
 - Milestones monitoring progress and feedback - but is anyone listening? Evidence of process does not mean change is actually occurring.
- Tactics – leading to the execution of strategy. Are these appropriate – do we have the resources/capabilities?

So.....

- Think about what the company strategy is behind a product?

Is this strategy?

Pfizer Annual Report 2021.

- “ABOUT PFIZER
- Pfizer Inc. is a research-based, global biopharmaceutical company. We apply science and our global resources to bring therapies to people that extend and significantly improve their lives through the discovery, development, manufacture, marketing, sale and distribution of biopharmaceutical products worldwide. We work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. We collaborate with healthcare providers, governments and local communities to support and expand access to reliable, affordable healthcare around the world. The Company was incorporated under the laws of the State of Delaware on June 2, 1942.”

Is this?

- “We are committed to fulfilling our purpose: Breakthroughs that change patients’ lives. Our purpose fuels everything we do and reflects both our passion for science and our commitment to patients. Pfizer’s growth strategy is driven by five “Bold Moves” that help us deliver breakthroughs for patients and create value for shareholders and other stakeholders:
 1. Unleash the power of our people;
 2. Deliver first-in-class science;
 3. Transform our go-to-market model;
 4. Win the digital race in pharma; and
 5. Lead the conversation.”

Is this?

- “We are committed to strategically capitalizing on growth opportunities, primarily by advancing our own product pipeline and maximizing the value of our existing products, but also through various business development activities. We view our business development activity as an enabler of our strategies and seek to generate growth by pursuing opportunities and transactions that have the potential to strengthen our business and our capabilities. We assess our business, assets and scientific capabilities/portfolio as part of our regular, ongoing portfolio review process and also continue to consider business development activities that will help advance our business strategy.”

Connecting strategy & Business Model

- You can see below some attempt at this – does it work?

Rolls Royce: <https://www.rolls-royce.com/about/our-strategy.aspx>

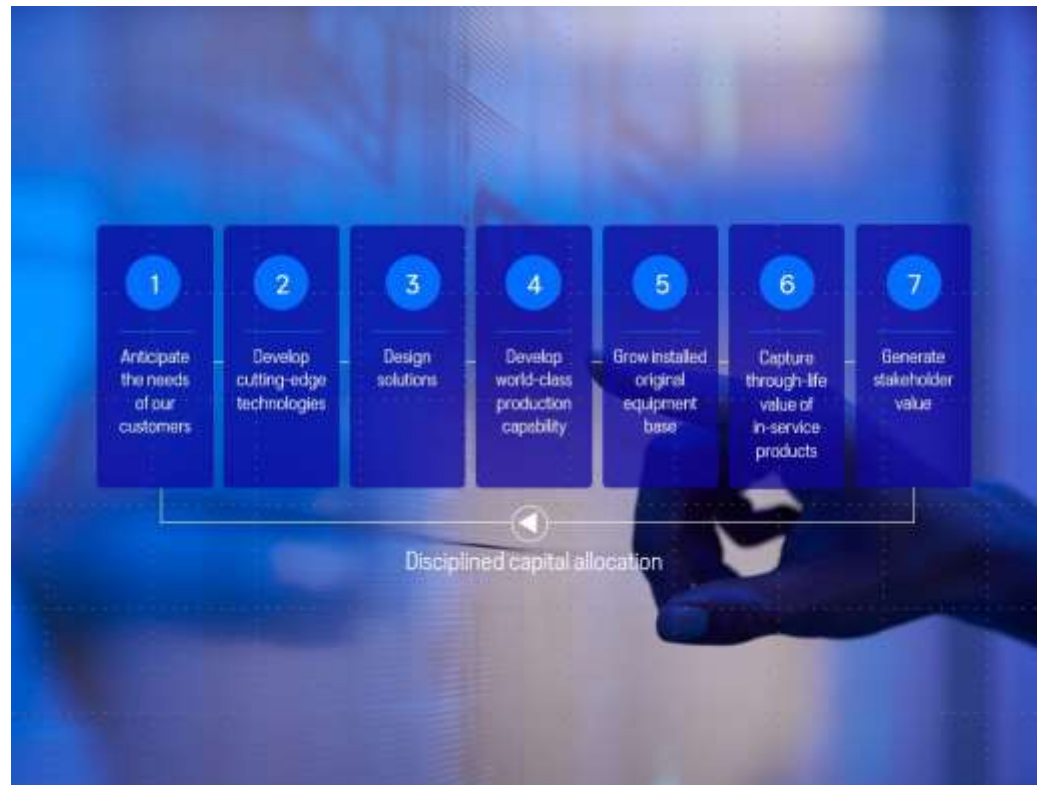
- Near-term areas of focus
- We are capitalising on the opportunities presented by our long-term customer relationships and installed product base; growing our capabilities in sustainable power; harnessing new digital technologies and creating new business opportunities. Many of these individual elements, such as the drive for sustainable power, are fundamental to our future direction. We are on a journey to create a better quality and more balanced business. As we look at the near term, there are three areas upon which we are focusing:

Rolls Royce: <https://www.rolls-royce.com/about/our-strategy.aspx>



Rolls Royce: <https://www.rolls-royce.com/about/our-strategy.aspx>

This is labelled as RR business model within the annual report.



Execution.

- Simply being ambitious is not a strategy.
- A list of things to do is not a strategy.
- You need to be willing to face the reality of the challenge: how many organisations can do this?
- Honesty addresses uncertainties: but who can really face this? People and organisations can fool themselves. Example not collecting data that would lead to a challenge to strategy and its execution.
- Make a choice – identify the critical issues.
- Implement and measure and adapt – but how easy is this?

Example.

- Objective - The United States:
- "should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth"
- "We choose to go to the Moon. We choose to go to the Moon...We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills"
- Easy to say.....

Example

- How a look at the NASA History page for evidence of this
- <https://www.history.nasa.gov/apollo.html>
- But what can we apply from this? The point is that we need to think about the resources – materials, capabilities etc that are required - plus the time-scale needed to produce the outputs.
- Also might think about the why...It was not to study rocks.
- Success measures?

Type of strategy

- Corporate strategy: this defines the scope of the firm in terms of the industries and markets in which it competes. What industries should the firm be in investment, new ventures, diversification etc What business should we in?
- Business Strategy: how does the firm competes within a specific industry or market? How should we compete in any given product market?
- Functional Strategy: these are associated with specific areas of activities such as production, marketing finance, R&D etc

Execution.

- Strategy Analysis: This is the application of the tools such as SWOT, Pestel etc to understanding the business environment and the market context.
- Strategy Formulation: is where the outputs of the above are considered and placed within the context of what it is you want to do.
- Strategy Implementation: this is where the strategy is executed and is the most important. It is also where the wish list comes up against the reality of resources and performance.

For each of these

- Snapshot in time – an analysis, not a list.
- Fail to analyse and understand the routines, resources and market context means failure to create a strategy.
- A living document - but then all of these techniques need to be updated. Execution of a strategy requires an effective capability to collect the right information and time for reflection.
- Helps to define the nature of the challenge.

Approach.

- These are the approaches you will most often see in the literature. These are often obvious and even based on common-sense.
- BUT it is the application in a specific industry where the complexity comes in. It requires an understanding of the industry, business model and underlying technology.

Types:

- Common examples:
 - Porter's Five Forces
 - SWOT
- Tools inform, they do not create strategy.
- Remember :
 - “If the only tool you have is a hammer you treat everything like a nail” A. Maslow
 - “For every complex problem there is a simple solution that is wrong” G.B.Shaw
- This is important – the tool you use determines how you view the business environment.

Porter's Five Forces

Threat of New Entry

- Time and cost of entry
- Specialist knowledge
- Economies of scale
- Cost advantages
- Technology protection
- Barriers to entry

Threat of New Entry

Competitive Rivalry

- Number of competitors
- Quality differences
- Other differences
- Switching costs
- Customer loyalty

Supplier Power

Competitive Rivalry

Buyer Power

Supplier Power

- Number of suppliers
- Size of suppliers
- Uniqueness of service
- Your ability to substitute
- Cost of changing

Threat of Substitution

Threat of Substitution

- Substitute performance
- Cost of change

Buyer Power

- Number of customers
- Size of each order
- Differences between competitors
- Price sensitivity
- Ability to substitute
- Cost of changing

New entry.

A strategic analysis would emphasize the dangers from new sources of competition. This can be prevented by:

- Economies of Scale.
- Technical expertise – the routines and associated capabilities might be difficult to replicate.
- Brand loyalty – an established reputation might be a significant advantage if maintained.
- Capital requirements high – linked to technical capability as well – the difficulty of organising assets and their funding in capital intensive businesses.

Power of suppliers

Different sectors will vary in their relationship with suppliers.

- Number of suppliers and size of each order.
- Any danger of backward integration, and hence stopping purchasing and competing with original suppliers.
- Shifting price and quality trade-off.
- Cost of changing.

There are important positive relationships as well

- The supplier might know better than the buyer how best to satisfy demand – the supplier might be product sensing effectively!

Power of buyers

Different sectors will vary in their relationship with buyers. The relationship between a business as a buyer will mirror the issues faced by the seller relationship. The supplier might know better than the buyer how best to satisfy demand – the firm as supplier will hopefully be product sensing effectively.

- Number of suppliers and size of each order.
- Shifting price and quality trade-off.
- Cost of changing.

Threat of substitution

- Cost of changing.
- Performance of substitutes – how perfectly might they substitute and any costs associated with making the product 'fit'.

Competition.

All of this feeds through to create the competitive rivalry of the market place – and competing search for solutions. A function of:

- Number of competitors.
- Quality/cost differences.
- Customer loyalty – stickiness of changing between firms.
- Switching costs.

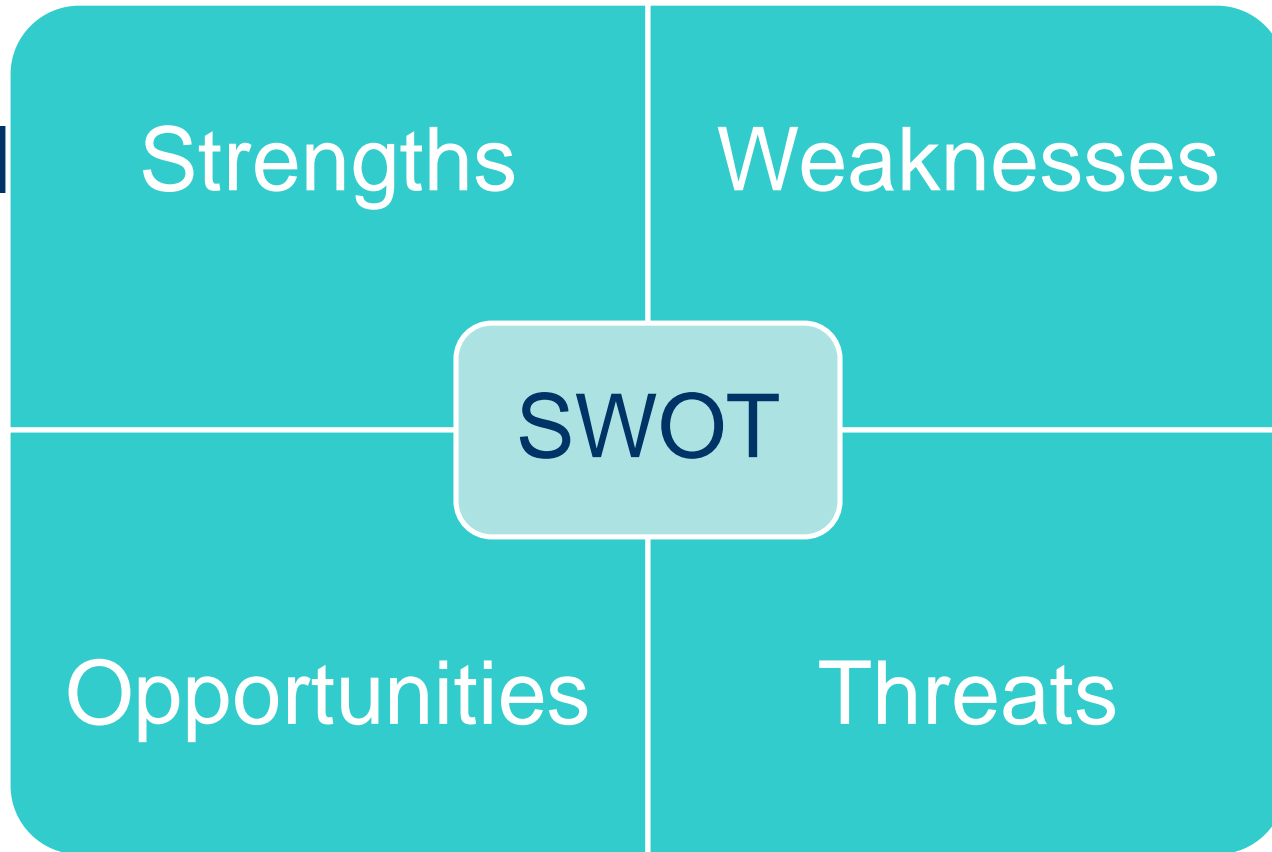
Remember competition takes place in a market place, where entrepreneurial vision and management expertise play out.

Application

Have a look at this example of how the 5 forces can be used:

- <https://www.smartinsights.com/online-brand-strategy/brand-development/how-to-use-porters-5-forces-model/>

SWOT Analysis



SWOT

- Often used as a way of framing strategic context. But there are issues with how it is interpreted.
- Strength in one area might be a weakness in another.
- A successful design team is clearly a strength but overreliance on them might be a weakness – what if they leave?
- Cash reserves might be a strength but they might also be attractive to corporate ‘raiders’.
- But at least a SWOT analysis would enable you to build up a picture of what the issues might be. In a sense this is the articulation associated with organisational learning.

SWOT

- Another issue is how the classification works – strengths and weaknesses internal environment, opportunities and threat external.
- Does this make sense?
- Robert Grant suggests a more nuanced framework.

Linking the firm and environment.

- Here the firm's attributes – goals, value, resources, capabilities etc are mapped onto the wider industry environment where competition plays out within the market – and the importance of product sensing and the customer.
- SWOT can help think about this – but needs to be considered alongside the firms routines and capabilities.

SWOT

- Have a look at this online example:
- <https://www.wordstream.com/blog/ws/2017/12/20/swot-analysis>
- There are many more. These techniques appear in the literature and they have been applied in a variety of contexts – and you might find them useful. But we need to go into more depth to understand why products succeed and more importantly why they fail.

Reminder – and food for thought.

- It is important to develop strategy – and realise it's importance to product development through the firm.
- BUT: beware of the wish list approach to strategy – and also the knowledge base used to inform strategy – and most important it's link to execution and product level knowledge. All too often – especially large organisations, and those detached from the market and the customer – create wish lists that owe more to groupthink and ego than reality.
- But you do need to engage with strategy – do the staff work – appreciate where a product sits with a business strategy.

How a look

- Have a look at the links on the next slide – some interesting data as to why business failures happen – not knowing the product and hence the market ranks high.
- Like much in business, it is common sense. But then why is so difficult to be successful...?
- These are useful slides to get you thinking about the reality of business formation – birth, life and death.

Links

- <https://www.cbinsights.com/research/startup-failure-post-mortem/>
- <https://www.cbinsights.com/research/venture-capital-funnel-2/>

- Porter, M.E. (1985) Competitive Advantage, Free Press, New York.
- Rumelt, R.P (2011) Good Strategy Bad Strategy: The Difference and Why It Matters, Crown Business
- Thompson J.L. (2001) Understanding Corporate Strategy, Thomson Learning, London
- Whittington, R,(2001) What is Strategy and Does it Matter? Thomson, London