Equity Securities

TOPIC 5: INDUSTRY ANALYSIS

Student learning outcomes

5.1 Discuss the key components that should be included in an industry analysis model.
5.2 Illustrate the life cycle of a typical industry.
5.3 Analyse the effects of business cycles on industry classification (i.e., growth, defensive, cyclical).
5.4 Analyse the impact of external factors (e.g., technology, government, foreign influences, demography, and social changes) on industries.
5.5 Illustrate the inputs and methods used in preparing industry demand and supply analyses.
5.6 Explain factors that affect industry pricing practices.

Student learning outcomes

5.7 Distinguish among the five competitive forces that drive industry profitability in the medium & long run.
5.8 Illustrate how the competitive forces drive industry profitability. Describe why industry growth rate, technology and innovation, government, and complementary products and services are fleeting factors rather than forces shaping industry structure.
5.9 Indicate why eliminating rivals is a risky strategy.
5.10 Show how positioning a company, exploiting industry change, and the ability to shape industry structure are creative strategies for achieving a competitive advantage.

References

- **Hooke, J. (2010)** *Security Analysis On Wall Street: A Comprehensive Guide to Today's Valuation Methods. (2nd edition)* John Wiley & Sons, Inc. Ch. 6.
- **Porter, M.E. (2008)** "*The Five Competitive Forces that Shape Strategy.*" Harvard Business Review.

Outcome 5.1

Industry analysis

- One of the most important components of the analysis of equity securities is a thorough analysis of the industry in which a firm operates
- This is but one step in the "top-down" approach, which starts with economics and capital market forecasts, moves to an industry analysis, and then looks at specific company information
- Equity analysts typically receive economic and capital market forecasts from others, and therefore their tasks begins with the industry analysis

Outcome 4.1

Components of an industry analysis

- A number of models have been developed which prescribe the format and content of the industry analysis
  E.g. IBISWorld (2010)
  - Industry definition
  - Industry performance
  - Products and markets
  - Competitive landscape
  - Operating conditions
- We will focus on the one put forward by Hooke in the prescribed reading for this topic:
  - Industry classification
  - External factors
  - Demand analysis
  - Supply analysis
  - Profitability
  - Competition

Outcome 5.1

Industry classification

- There are several ways in which an industry can be classified in order to develop a view about the likely future prospects of a firm within that industry
  - Industry sector
  - Industrial life cycle
  - Business cycle sensitivity
- The broadest way to classify an industry is to determine the industry sector
- The broadest sectors in common use are the mining and the "industrial" sector (i.e. everything except mining)
- The industrial sector, in turn, is commonly divided into specific sectors such as consumer staples, consumer discretionary, health, energy, utilities and financial

Outcome 5.2

Industrial life cycle

- One of the most important classifications for an industry is its life cycle, a significant determinant of a firm's success
- Typical life cycle phases are:
  - Pioneer → Product acceptance is questionable; Implementation of strategy is unclear; High risk and many failures
  - Growth → Product acceptance is established; Roll out begins; Growth in sales & earnings
  - Mature → Industry success linked to the general economy; Competition for market share in a stable industry
  - Decline → Industry overtaken by shifting tastes or technology; Demand steadily decreases

Outcome 5.3

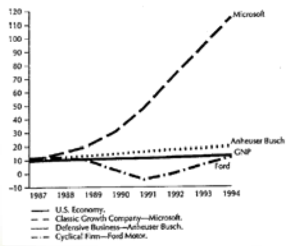
Business cycle sensitivity

- Another classification is sensitivity to the business cycle
- Economies do not grow in straight line – they generally cycle through periods of recession, followed by a recovery
- Different industries react differently to this cycle, which is a determinant of how firms will succeed throughout the cycle
- Examples are:
  - Growth → Above normal expansion in sales and profits independent of the business cycle
  - Defensive → Stable performance during both ups and downs of the business cycle
  - Cyclical → Profitability tracks the business cycle, often in an exaggerated manner

Outcome 5.3

Business cycle sensitivity

- This diagram shows how three different firms have fared over the business cycle that the US economy experienced over a 7-year period
- Microsoft is a growth company likely to do well irrespective of the business cycle
- Anheiser Busch makes an product (beer) that has steady, inelastic demand over the cycle
- The demand for Ford's products is highly elastic



Outcome 5.4

External factors

- Besides the life cycle and business cycle sensitivity, which relate to the economics of an industry, there are external factors outside the industry's control that are significant
  - Technology → Does the industry face obsolescence from competing technology?
  - Government → How will new or changed regulations impact sales and profits?
  - Social → How will changes in lifestyle preferences impact sales?
  - Demographic → How will population changes impact sales?
  - Foreign → How will changes in foreign regulations, lifestyles, demographics and development impact demand for the firm's products?

Outcome 5.4

External factors

- Focus on evident trends affecting a 3 – 5 year outlook
- Focus on trends which will have the most impact on the stock
- Quantify the impact of the external factors by looking at historical trends and their impact

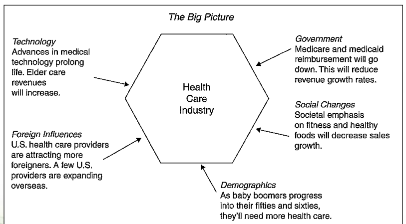


EXHIBIT 6.8 External Factors Affecting Health Care Industry Sales

Outcome 5.5

Demand analysis

- The ultimate purpose of the analysis we have looked at so far is an assessment of future demand for the industry's products
- This can be done with top-down or bottom-up analysis
- Components of a top-down analysis are:
  - Macroeconomics analysis
  - Business cycle sensitivity
  - Industry life cycle
  - External factors
  - Input/output analysis – observing the flow of goods and services through the production process
    - If one industry is a major customer of another, inputs to one industry will partially drive demand for the supplier's products
    - Consumption of an industry's output will drive demand for complementary products

Outcome 5.5

Demand analysis

- Bottom-up analysis aims to identify sub-markets by defining purchasers and their motivations
  - Established industries
    - Long-time customers can be contacted to try to establish what drives demand for the industry's products
  - Growth industries
    - Consider new outlets for the industry's products
  - Untested industries
    - Determine whether industry fulfils a need that (1) exists, and (2) isn't being met by another industry
    - Forecast new industry sales based on a similar industry
- Top-down and bottom-up analysis can be done separately and used to verify each other

Outcome 5.5

Supply analysis

- Analysts spend most of their time forecasting demand, but supply can pose problems in many industries
  - Some industries are reliant on highly skilled workers, while others require major investments in fixed capital
  - It often requires a lead time of 3 to 5 years to create new capacity
- Supply is a function of unused capacity and the ability to add additional capacity

1996 Mexican cement market supply/demand forecast

	1996	1997	1998	1999
1996 capacity	36.0	36.0	36.0	36.0
1997 additions, net		1.0	1.0	1.0
1998 additions, net			3.7	3.7
1999 additions, net				1.3
Available capacity	36.0	37.0	40.7	42.0
Expected demand	31.0	33.0	35.5	38.0
Capacity utilisation	86%	89%	87%	90.5%

Outcome 5.6

Industry pricing

- The ultimate test of whether an industry is a viable investment opportunity is not sales, but profitability
- A firm's ability to implement a profitable pricing policy is driven by four main factors:
  - Product segmentation
    - Most industries segment their products in order to charge higher prices to some segments of the market
  - Industry concentration
    - High prices can be maintained in concentrated industries
  - Ease of industry entry
    - Barriers to entry inhibit competition and help maintain profits
  - Price changes in key supplier inputs
    - Industries may or may not be able to pass on higher input prices

Outcome 5.7

Five competitive forces

- Porter (2008) identified five competitive forces that drive profitability in an industry:
  - Established rivals
  - Customers
  - Suppliers
  - New entrants
  - Substitutes
- All five of these forces must be analysed in order to respond strategically to competition and enhance profitability
- We will examine each of these forces in turn to see how they define the structure of the industry

Outcome 5.8

Established rivals

- Profitability and pricing are driven by the intensity of existing competition and the basis on which it occurs
- Competition will be more intense if:
  - Competitors are numerous and roughly equal in size and power
    - Without an industry leader, desirable practices for the industry as a whole go unenforced
  - Industry growth is slow
    - This precipitates fights for market share
  - Exit barriers are high
    - Firms earning low or negative returns may continue to compete
  - Rivals are highly committed (leading to more intense competition)
  - Firms cannot read each other's signals (due to lack of familiarity with each other, or dissimilar goals and objectives)

Outcome 5.8

Established rivals

- Competition is especially destructive to profitability if it gravitates solely to price competition, which effectively transfers profits from an industry to its customers
- Price competition is most likely to occur if:
  - Products or services are nearly identical
    - There is no way to compete, other than on price
  - Fixed costs are high and marginal costs are low
    - Firms are tempted to cut costs in order maintain volume, so that high turnover contributes to recovery of fixed costs
  - Capacity must be expanded in large increments to be efficient
    - This leads to long periods of overcapacity and price cutting
  - The product is perishable
    - It is tempting to cut costs to sell a product while it has value

Outcome 5.8

Customers

- Buyers of an industry's products and services can drive down prices, and profitability, if they have bargaining power and are price sensitive
- They will tend to have bargaining power if:
  - There are few of them
  - Products are standardised
  - There are few switching costs
  - Backward integration is a threat
- They will tend to be more price sensitive if:
  - The products purchased are a significant fraction of cost structure
  - The buyer group is unprofitable or strapped for cash
  - The quality of the buyer's products are little affected by quality
  - The industry's products have little effect on the buyer's other costs

Outcome 5.8

Suppliers

- As with customers, suppliers who can control price can extract profitability from an industry they supply to
- Suppliers will tend to have such power if:
  - The supplier group is more concentrated than the industry it supplies to
  - The supplier group does not depend heavily on any one industry
  - There are high switching costs to change suppliers
  - Suppliers offer products that are differentiated
  - There is no clear substitute for what the supplier offers
  - The supplier group can credibly threaten to integrate forward

Outcome 5.8

New entrants

- The threat of entry of new participants can limit the profitability of an industry
- If an industry is highly profitable, new firms and firms diversifying from related industries will be tempted to enter the industry
- Firms in a profitable industry have an incentive to hold down prices or invest heavily to protect their position – both of which will retard profitability
- It is the *threat* of entry, rather than whether the entry actually occurs, that puts a brake on profitability
- The extent of the threat depends on barriers to entry and expected retaliation from existing players in the industry

Outcome 5.8

New entrants

- Barriers to entry include:
  - Supply-side and demand-side economies of scale
    - New entrants must come in on a large scale in order to enjoy these economies and hence be competitive
  - Customer switching costs make it difficult for newcomers to attract business
  - Capital requirements can deter new entrants, especially if the costs are not recoverable (e.g. advertising)
  - Incumbency advantages independent of size
    - E.g. propriety technology, preferential access to raw materials
  - Unequal access to distribution channels
    - Distribution channels are costly to create and hard to bypass
  - Restrictive government policy
    - Government regulations can limit or prevent new entry

Outcome 5.8

New entrants

- The likelihood and extent of retaliation can deter new entrants to an industry
- If retaliation is extensive, the additional cost to newcomers may exceed the cost of capital, and therefore act as an effective deterrent
- Retaliation is more likely to occur if:
  - This has occurred previously to new entrants
  - Incumbents have substantial resources to fight back
  - The industry has high fixed costs, tempting incumbents to drop prices in order to maintain market share
  - Industry growth is slow, so newcomers can only gain volume by taking market share from existing firms

Outcome 5.8

Substitutes

- The threat of substitutes can put a ceiling on an industry's profitability, because if prices are too high, buyer's will be tempted to switch to the substitute
- Substitutes can be difficult to recognise, and can include:
  - Doing without the product
  - Buying a used product
  - Bringing the product "in-house" and supplying it yourself
- The threat of a substitute is high, and the cap on an industry's profitability will be tighter, if:
  - It offers an attractive price-performance trade-off to the industry's product
  - The buyer's costs of switching to the substitute is low

Outcome 5.8

Factors rather than forces

- There are a number of other factors – visible attributes of an industry – that can affect profitability in the short run but are not characteristic of industry structure in the long run
- These include:
  - Industry growth rate
    - High growth industries may seem attractive, but will attract new entrants and may give buyers and suppliers bargaining power
  - Technology and innovation – not a guarantee of profitability
  - Government
    - Government involvement is not inherently bad or good, but must be analysed in the context of the 5 competitive forces
  - Complementary products and services
    - Existence of complements is also not inherently good or bad

Outcome 5.9

Elimination of rivals

- One strategy to decrease competition is to eliminate rivals, through mergers and acquisitions
- However this is risky strategy
  - The short-term profit windfall is likely to attract new entrants into the industry
  - There may be a backlash from both customers and suppliers, if they see the reduction in competition as an attempt shift profitability from them to the industry that has now become less competitive

Outcome 5.10

Strategies for competitive advantage

- Every company should know the average level of profitability for its industry
- The five competitive forces indicate reasons *why* it has this level of long-term profitability
- The next step is to implement a strategy to enhance competitive advantage, based on industry structure
- Strategic actions should include some or all of the following:
  - Positioning the company to better cope with competitive forces
  - Anticipating and exploiting shifts in the forces
  - Shaping the balance of forces to create a new industry structure that is more favourable to the company

Outcome 5.10

Positioning the company

- It is important to build defences against the competitive forces or find a position in the industry where the forces are at their weakest
- An examination of each of the competitive forces can guide the company toward strategic actions, such as:
  - Differentiating the product to reduce competition from existing rivals
  - Actions to reduce the bargaining power of customers and suppliers, such as targeting a particular segment of the market
  - Investment to make new entry into the industry less attractive, or actions to increase the threat of retaliation to deter entry
  - Differentiating the product, or changing the business structure to increase switching costs, to reduce the effect of substitutes on profitability

Outcome 5.10

Exploiting industry change

- When industry structure is changing, an alert company with a good understanding of the industry can spot those changes and take advantage of new opportunities for profit

Shaping industry structure

- Actions can be taken to change the long-term structure of the industry, with the objective being to:
  - Redivide profitability so that more is shared by existing participants and less by buyers and suppliers
  - Increasing the profitability pool