soleadea

LEVEL 1: EQUITY INVESTMENTS

Reading 37 (5th out of 6): INDUSTRY & COMPANY ANALYSIS

Difficulty: **medium**

Benchmark Study Time: **3.8h**

2022

https://soleadea.org/

THIS E-BOOK:

- is a selective summary of the corresponding Reading in your CFA® Program Curriculum,
- provides place for your own notes,
- helps you structure your study and revision time!

How to use this e-book to maximize your knowledge retention:

1. **Print** the e-book in duplex and bind it to keep **all** important info for this Reading **in one place.**
2. **Read** this e-book, best twice, to grasp the idea of what this Reading is about.
3. **Study** the Reading from your curriculum. **Here add** your notes, examples, formulas, definitions, etc.
4. **Review** the Reading using this e-book, e.g. write your summary of key concepts or revise the formulas at the end of this e-book (if applicable).
5. **Done?** Go to your study plan and change the Reading's status to **green**:
   (it will make your Chance-to-Pass-Score™ grow ☺).
6. **Come back** to this e-book from time to time to **regularly review for knowledge retention!**

NOTE: While studying or reviewing this Reading, you can use the tables at the end of this e-book and mark your study/review sessions to hold yourself accountable.

INDUSTRY CLASSIFICATION

Introduction

Industry analysis is an analysis of a particular branch of the economy. To analyze a company it is necessary to start with an analysis of the industry in which this company operates. Of course, if you want to learn about the company in detail, you also have to carry out its credit analysis and equity analysis. Such a wide investigation results in information synergy.

Industry analysis is used to:

- learn about and understand the business activities of different companies together with their business environments,
- identify investment opportunities using a top-down approach,
- conduct portfolio performance attribution, which helps us identify the sources of a portfolio's returns relative to its benchmark.

Approaches to industry classifications

Approaches to industry classifications:

- products or services supplied,
- business-cycle sensitivity,
- statistical similarities.

Products or services supplied

Products or services supplied are most commonly applied to classify industries.

Industry includes a group of companies manufacturing similar products or offering similar services, e.g. automotive industry.

A few industries form a group called a **sector**, e.g. health care sector.

Some companies cannot be assigned to one industry or sector because their revenues come from different sources, e.g. General Electric, revenue sources are e.g. power industry, movie industry, banking or rail industry.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Classification systems based on products or services supplied:

- Global Industry Classification Standard,
- Russell Global Sectors,
- Industry Classification Benchmark.

Business-cycle sensitivity

Cyclical companies are those whose financial health depends to a large extent on the economic situation. Such companies have to face high fluctuations in demand. The demand goes up in periods of economic expansion and falls dramatically during economic contraction. Products manufactured by those companies are pretty expensive and surely are not basic products, which means that in unfavorable economic conditions people may refrain from purchasing them. Cyclical industries include e.g. housing, industrials, or technology.

In the case of non-cyclical companies, the economic situation doesn't matter because the demand for the products of such companies is stable irrespective of the business cycle. In other words, the products and services supplied are in demand during the whole business cycle. Examples include health care, food and beverages, or personal care products.

Defensive industries include industries with companies that supply mainly consumer staples, so they're not affected by changes in the economy.

Growth industries are those whose reactions to economic fluctuations override those fluctuations.

Statistical similarities

The statistical similarities approach is based on the correlation between past returns on companies' securities.

Cluster analysis – a technique according to which we form a group of companies that are characterized by a high correlation. Because of considerable changes in correlations between particular companies, the compositions of such groups depend on time or a geographical region.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Industry classification systems

Industry classification systems:

- commercial industry classification systems,
- governmental industry classification systems.

Commercial industry classification systems

Commercial industry classification systems are usually developed by index providers. The structure includes multiple levels and sub-industry groups.

Classification systems developed by index providers:

- **Global Industry Classification Standard (GICS)** – developed by Standard & Poor's and MSCI Barra; meant for developing and developed economies; companies assigned according to their business activities to sub-industries → industries → industry groups → sectors;
- **Russell Global Sectors** – a three-tier structure of sectors, subsectors, and industries that categorizes companies according to their business activity;
- **Industry Classification Benchmark** – developed by Dow Jones and FTSE; a four-tier system of industries, supersectors, sectors, and subsectors categorizing companies by their main source of revenue.

Governmental Industry Classification Systems

Governmental industry classification systems are adopted by government agencies. Their purpose is to make it easier for analysts to compare data and evaluate the performance of different entities.

Classification systems adopted by government agencies:

- **International Standard Industrial Classification of All Economic Activities (ISIC)** – used by the United Nations; enables the comparability of the statistics over time and among different regions; consists of: categories, sections, divisions, groups, and classes;
- **Statistical Classification of Economic Activities in the European Community** – a European equivalent of ISIC; structures and groups business entities according to their primary business activities and industries they operate in; consists of: sections, divisions, groups, and classes;
- **Australian and New Zealand Standard Industrial Classification**,
- **North American Industry Classification System**.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Disadvantages of governmental classification systems:

- do not make a distinction between small and large businesses, for-profit and not-for-profit organizations, public and private companies,
- no information about the classified companies may be disclosed – it is difficult to obtain information concerning entities that belong to a certain category.

Advantage of both the commercial and governmental classification systems:

- regular updates at given times (though the governmental ones provide them less often).

Constructing peer groups

Peer groups – groups of companies that share similar characteristics and are affected by similar economic factors.

Constructing a peer group is a process that fully depends on its constructor. Commercial industry classifications usually serve as a basis for constructing peer groups.

Steps of the process:

1. Verification of whether the commercial classification system is appropriate to perform the analysis.
2. Analysis of a company's annual report and of the reports of competitive companies that seem to belong to the same peer group.
3. Review of industry trade publications to see if the companies earn their revenues from similar sources as the analyzed company and if they could form a peer group together.

ANALYSIS OF INDUSTRY

Introduction

Analysts and portfolio managers:

- study the relations between the economic situation and its influence on particular industries,
- try to develop forecasts regarding future economic results of different industries,
- compare the results of their projections with those of other analysts.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

To find industries with the best prospects, analysts should examine the performance of a particular industry:

- in relation to other industries,
- in different time periods.

strategy group = a group of companies usually from the same industry that run their businesses in a similar way and using similar business models

Industry life-cycle stages

When an industry **life-cycle stage** changes, so does the experience curve. The experience curve is a curve representing direct total cost per unit of good as a function of cumulative output. This curve slopes down because as the production increases, fixed costs are spread over a larger number of units produced. The reason for this decline is also an increase in labor efficiency, as well as advances in production methods and product design.

Characteristics of industries

Industries differ in:

- the level of competition,
- barriers to entry,
- types of customers,
- pricing power,
- required rates of return on capital.

Strategic analysis

The analysis of:

1. the environment in which companies operate, and
2. the way in which this environment affects their business strategy

is called **strategic analysis.**

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Michael Porter's 'five forces' framework

Determinants of the intensity of competition in the industry:

1. the threat of **substitute products**, which has a negative influence on demand for a given product,
2. the bargaining **power of customers**, which intensifies competition and exerts price pressure on suppliers,
3. the bargaining **power of suppliers**, which increases prices of raw materials used by companies in production,
4. the threat of **new entrants** to the industry, whose intensity is influenced by barriers to entry.
5. the **rivalry** among existing competitors in the industry, which depends on the level and structure of competition in the industry.

<u>Barriers to entry</u>

Barriers to entry – play an important role in earning economic profits.

Low barriers to entry:

- competitive market (many entities are able to easily enter the market and have their share in it),
- weak pricing power,
- e.g. casual dining industry (no requirement for know-how or capital; almost anyone can try to enter the market).

High barriers to entry:

- favorable for the entities that already operate in the market,
- reduced competition,
- strong pricing power,
- e.g. energy market (huge capital, knowledge, and access to technology are required),
- note exceptions, e.g. automotive or aviation market – weak pricing power, high barriers to exit.

<u>Industry concentration</u>

Industry concentration analysis >> measuring the market share of the biggest companies, especially of the entity with the largest market share. The higher it is, the greater the concentration of the market.

Measures of concentration:

- relative,
- absolute.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Industry classification according to the degree of market concentration and barriers to entry

Concentrated with strong pricing power	Concentrated with weak pricing power
Soft drinks Orthopedic devices Laboratory services Pharmaceuticals	Commercial aircraft Automobiles Consumer electronics Equity exchanges
Fragmented with strong pricing power	**Fragmented with weak pricing power**
Asset management Private banking Propane distribution For-profit education	Retail Solar panels Airlines Restaurants

<u>Industry capacity</u>

Industry capacity – the number of goods that the companies are able to produce in a given time.

According to the law of supply and demand:

- if capacity is limited → companies are not able to satisfy the demand and prices increase;
- if supply exceeds demand → prices decrease.

It is said that industry capacity is fixed in the short term but variable in the longer term.

Industry capacity changes at a different pace for different industries (e.g. health care → low pace vs advertising industry → high pace).

<u>Market share stability</u>

Market shares are affected by many factors such as:

- barriers to entry,
- new product introductions,
- product differentiation.

Stable market shares mean that the industry is less competitive. When market shares change significantly, the industry is highly competitive.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Industry life cycle

Stages of the industry life cycle:

- **embryonic stage** – the first products or services appear and the industry begins to develop; growth is slow and products or services are only available at high prices; companies cannot make use of economies of scale;
- **growth stage** – a very rapid increase in demand; profitability improves, products and services are more available, and prices fall down; the industry is still characterized by low competition and the whole demand at this stage is boosted by the companies entering the market;
- **shakeout stage** – the industry growth slows down; the number of players goes up, competition is intense and profitability declines; to maintain profitability, costs are lowered; brand loyalty is built;
- **maturity stage** – the market is saturated; the industry experiences little growth (or decline); industry consolidation takes place (the industry becomes a sector with relatively high barriers to entry).
- **decline stage** – competition grows stronger and the industry experiences negative growth caused by a decrease in demand, which in turn is caused by the appearance of substitutes or by customers' expectations; prices of products and services go down (price wars); some entities exit the industry.

The **life-cycle model** is used to assess the stage of development a company is at.

Each stage of industry development has its own characteristics:

New industries:

- are more competitive (markets are not fully shaped),
- are focused on building customer loyalty.

Mature industries:

- are focused more on keeping existing customers than acquiring new ones,
- put more emphasis on selling products and services already known to customers instead of introducing new ones,
- costs are rationalized and cash flows remain strong.

Industry life-cycle analysis – drawbacks:

- it is a theoretical model and economic reality often differs from theory,
- regulatory changes may distort the life cycle of an industry and lead to difficulties in analysis,
- social changes such as demography or different processes taking place in a society affect industry life cycles,
- it is best suited for industries during periods of stability (it is not effective to use the model in times of economic uncertainty and rapid changes which are associated with it).

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EXTERNAL INFLUENCES ON INDUSTRIES

External influences on industries:

- macroeconomic influences,
- technological influences,
- demographic influences,
- governmental influences,
- social influences.

Macroeconomic influences

Industries may be affected by the economic situation or trends in economic activity.

Cyclical trends depend on the business cycle.

Structural trends depend on changes in economic activity.

Macroeconomic factors important for industry analysis:

- gross domestic product,
- interest rates,
- availability of credit,
- inflation, etc.

Technological influences

Industries may be affected by new technologies:

- their introduction can significantly weaken the demand for older products and services in an industry,
- new products are launched, which may change the market shares of individual companies or even cause an entirely new industry to develop, e.g. computer market.

Demographic influences

Industries may be affected by demographic factors such as:

- changes in population size,
- distributions of age and gender, e.g. baby boom after WW II.

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Governmental influences

Industries may be affected by governments:

- they influence the performance of particular industries,
- they determine the level of taxation, which strongly affects the performance of businesses,
- government spending also affects the economic situation of the industry (governments are one of the largest corporate clients in many industries),
- the influence of the government on a variety of industries may be indirect, e.g. stock exchanges or medical associations.

Social influences

Industries may be affected by social changes:

- influence aspects of life such as work, leisure activities, hobbies, family life, money spending,
- lifestyle may influence business sectors, e.g. tobacco consumption.

COMPANY ANALYSIS

Company analysis – an analysis of the entirety of a company's operations, the effects of which can be assessed based on an analysis of the company's financial position, its products and services, as well as its competitive strategy.

Steps in a company analysis:

1. To find out about the company's external environment, i.e. macroeconomic, demographic, or technological factors.
2. To look at the company's strategy and method of its implementation:
   - defensive vs offensive strategy;
   - Porter's distinction of low-cost vs product or service differentiation strategy:
     - ✓ **low-cost strategy** – companies try to be low-cost producers (thanks to low-cost production, it is possible to sell products at a price lower than prices set by other companies and, thus, increase the market share);
     - ✓ **product or service differentiation strategy** – the company tries to distinguish their products and services from other products and services available in the market (the price premium must exceed the cost of differentiation and, more importantly, the difference needs to be appealing to customers).

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Elements of company analysis

Company analysis should provide us with information on:

- corporate profile, corporate governance, strengths and weaknesses, and the characteristics of the industry,
- characteristics of products and services, analysis of demand, supply and costs of production,
- pricing environment and financial ratios,
- forecasts regarding the company's cash flows, profits, and cost of capital used in the discounted cash flow method to value the company.

Corporate profile

Corporate profile should contain information about:

- products and services,
- the company's position in the industry,
- a brief description of the company's history,
- the composition of sales,
- the product life-cycle stage.

Note: Analysts also focus on people involved in the management of the company and they analyze the way the management fulfills its tasks.

Industry characteristics

As regards **industry characteristics**, company analysis should include:

- stage of the industry life cycle and its sensitivity to changes in the economic situation,
- brand loyalty,
- existing barriers to entry and barriers to exit,
- number of companies in the industry,
- technologies used.

Analysis of the supply of products/services

As far as **supply analysis** is concerned:

- it should determine the sources of supply and the industry capacity outlook,
- it is crucial to find about the company's capacity and cost structure.

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Analysis of the demand for products/services

An **analysis of the demand** for products and services should include:

- sources of demand,
- product differentiation,
- demand prospects,
- business opportunities,
- new products.

Analysis of pricing

An **analysis of pricing** should:

- describe the impact that supply and demand have on pricing,
- examine the share of raw materials and labor costs in total costs,
- include the expectations about the costs of materials and prices of products in the future and the demand for them.

Financial ratios and measures

Company analysis should include:

- activity ratios,
- liquidity ratios,
- solvency ratios,
- profitability ratios,
- other financial measures.

Activity ratios	Liquidity ratios	Solvency ratios	Profitability ratios	Other measures of interest
days of sales outstanding, days of inventory on hand, days of payables outstanding	current ratio, quick ratio, cash ratio	net debt to EBITDA, net debt to capital, debt to assets	gross profit margin, operating profit margin, net profit margin	growth rate of net sales, growth rate of gross profit, EBITDA, net income

HERE KNOWLEDGE RETENTION HAPPENS | WRITE: notes, examples, formulas, definitions, relations, etc.

Summarizing key concepts:

☐ Industry analysis vs Company analysis

My summary:

☐ Products or services supplied vs Business-cycle sensitivity vs Statistical similarities

My summary:

☐ Industry classification systems

My summary:

☐ Peer group

My summary:

☐ Strategic analysis of industry

My summary:

☐ Michael Porter's 'five forces' framework

My summary:

☐ Industry classification according to the degree of market concentration and barriers to entry

My summary:

☐ Industry life cycle & life-cycle model

My summary:

☐ External influences on industries

My summary:

☐ Steps in company analysis

My summary:

☐ Elements of company analysis

My summary:

Keeping myself accountable:

TABLE 1 | STUDY

When you sit down to study, you may want to **try the Pomodoro Technique** to handle your study sessions: study for 25 minutes, then take a 5-minute break. Repeat this 25+5 study-break sequence all throughout your daily study session.

✔ Tick off as you proceed.

POMODORO TIMETABLE: study-break sequences (25′ + 5′)													
date		date		date		date		date		date		date	
25′		25′		25′		25′		25′		25′		25′	
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25′		25′		25′		25′		25′		25′		25′	
5′		5′		5′		5′		5′		5′		5′	

TABLE 2 | REVIEW

Never ever neglect revision! Though it’s not the most popular thing among CFA candidates, regular revision is what makes the difference. If you want to pass your exam, **schedule & do your review sessions.**

REVIEW TIMETABLE: When did I review this Reading?													
date		date		date		date		date		date		date	
date		date		date		date		date		date		date	