

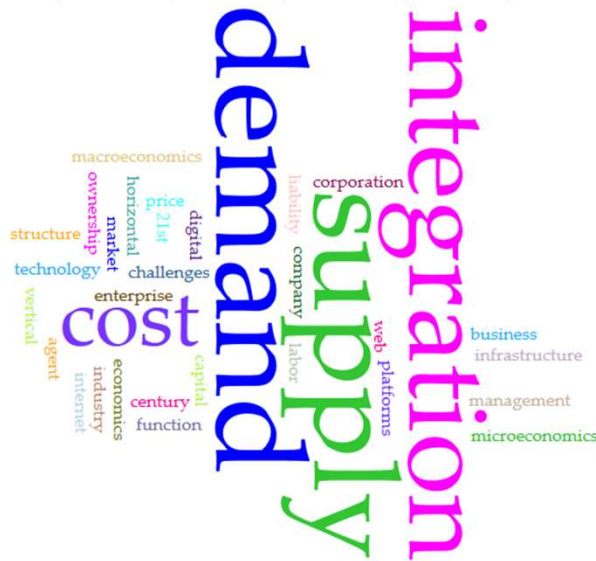
Enterprise Essentials

Class # 3 – Business Dynamics

EPITA | Fall 2025

Valeriu Petrulian

Enterprise Essentials Class 3



- Admin
- Recap
- Thoughts for the day

Final presentation sessions

	DSA – 42 students	SE – 35 students	CS – 20 students
Session 1	DSA1 Monday 17/11 13:00 – 17:00 (4 h)	SE1 Monday 17/11 09:00 – 12:00 (3 h)	CS1 Wednesday 19/11 09:00 – 12:00 (3 h)
Session 2	DSA2 Friday 21/11 09:00 – 12:00 (3 h)	SE2 Wednesday 19/11 13:00 – 16:00 (3 h)	

Course Breakdown

EPITA | Fall 2025

Class	Date & Time Topics
Class 1	Setting the scene: The economy and the firm as an economic agent
Class 2	The Business Environment: Industries and Markets
Class 3	Business Dynamics
Class 4	Enterprise & Business Models
Class 5	Managing a business organization 1
Class 6	Managing a business organization 2
Class 7	Final Presentations & Course Wrap-Up

Today's Reference:

(optional) Neil C. Churchill, Virginia L. Lewis. *The Five Stages of Small Business Growth*. Harvard Business Review, May 1983



Business Dynamics

Business Growth, Types of Growth, Mergers & Acquisitions, Outsourcing, Partnerships; Innovation clusters and business ecosystems

Business Dynamics Topics

- From start-up to grown-up and beyond
- Growth
 - Endogenous
 - Exogenous
- Inter-firm relationships
 - Outsourcing
 - Innovation clusters and ecosystems
 - Alliances, Partnerships, JV's and other types of inter-firm relationships

Business Dynamics

Growth

- Growth *may be* one of the criteria a business may have to determine whether it is successful or not
- Growth, in a market environment, is determined by:
 - The **growth of the market**, itself, the variation of the overall sales, year over year
 - The **overall size of the market**, the combined sales volume
 - The **market share** of a business, showing the percentage of its sales/total
 - **N-firm concentration ratio**, showing the combined market share of the N largest firms

Business Growth

Market growth and company growth

MARKET GROWTH

- Volume of sales
- Price evolution(s)
- Trend line (preferably upward)

COMPANY GROWTH

- Size of company, in terms of:
 - Volumes of production
 - Revenues
 - Number of employees
 - Presence across geographies
 - Market valuation (for listed companies)

Market Growth Discussion



Telephony (Mobile and fixed)

- The markets for mobile telephony experienced strong growth in the mid 90's and early 2000's
- Saturation occurs when 100% of a given population has 1 (or more than 1) phone (fixed or mobile)
- For example, in France the saturation point (100% of market penetration) occurred between 2010 and 2012 (Source: ARCEP) when households were equipped with at least 1 fixed or 1 mobile phone, with sharp differences between fixed and mobile

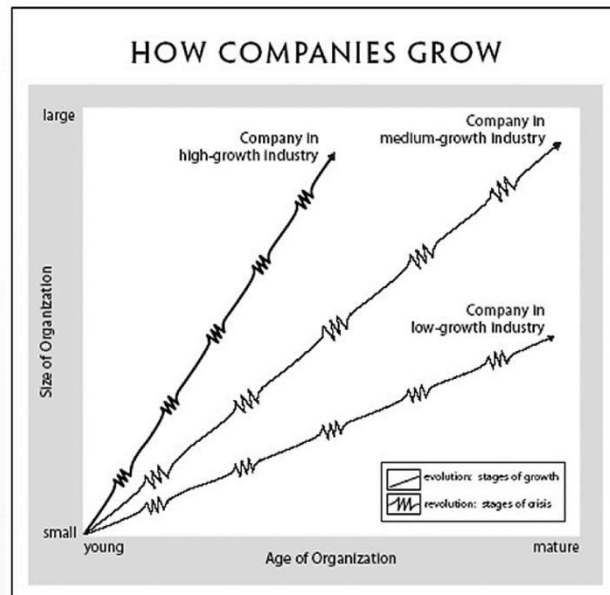
Personal Computers

- The PC market has experienced double-digit growth rates for nearly two decades
- In recent years, it's growth has been significantly slowed down due to smartphones, tablets and connected TVs
- For example, in France, 82% of the households have a PC in 2018, as compared to:
 - Only 45% in 2014

Source: INSEE

Market size and company growth

MARKET SIZE AND COMPANY GROWTH



Source: **Larry E. Greiner**. *Evolution and Revolution as Organizations Grow*. Harvard Business Review, May-June 1998

GROWTH AND CRISES

- According to Larry E. Greiner, each stage of growth (which he calls « evolution ») may create situations leading to the firm facing a crisis (phenomenon which he calls « revolution »)
- Crises are dependent on 1) the stage of growth and 2) specific factors
- Greiner emphasizes the role of management in the emergence and resolution of such crises (more in Classes 5 & 6)

What is company growth?

START-UP

- 1 or 2 people who have 'an idea'
- Limited resources:
 - Financial
 - Material
 - Human
- Flat organization
 - Swiss army knife type of competency mix
 - Virtually no hierarchy

GROWN-UP

- Large, structured organizations
- Several countries, geographies, markets
- Diversified assets – financial, material, human
- Specialized functions
- Hierarchical layers:
 - Corporate governance
 - Management – top, middle, bottom

Market Growth and Revenue Growth

MARKET GROWTH

- The overall size of the market
 - For example, if the market for smartphones grew from 1 billion units sold in 2019 to 1.2 billion units sold in 2020, the market growth rate would be 20%.

REVENUE GROWTH

The total sum of money collected by an enterprise for selling products/services

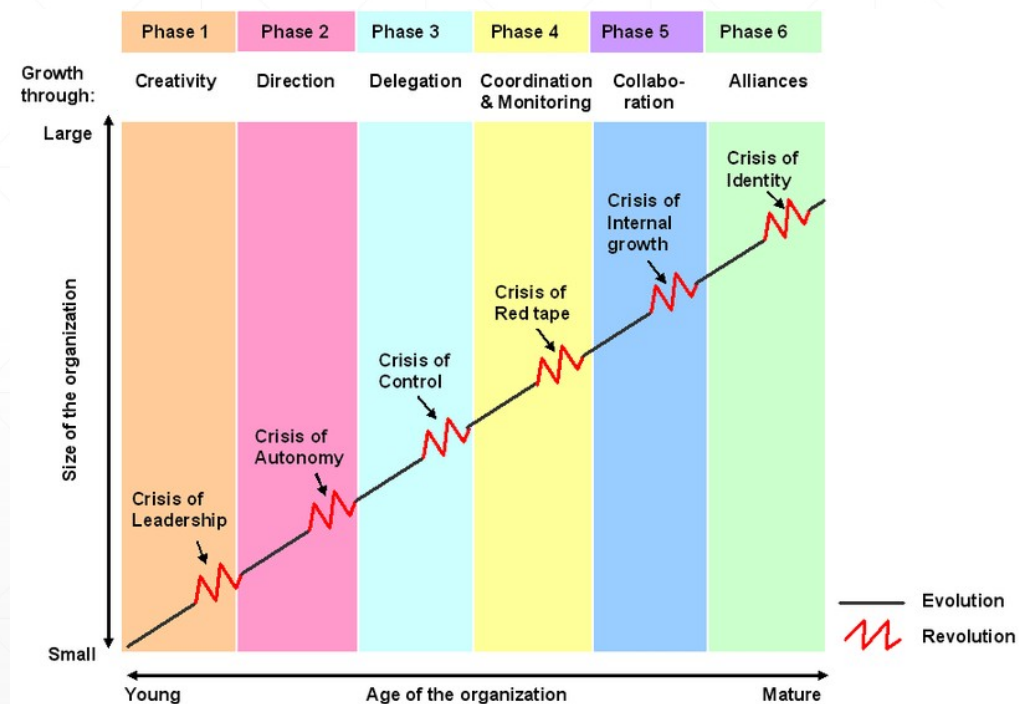
The correlation between the 2 indicators should be carefully analysed by managers and decision makers.

- A company may raise prices (increase revenue) without increasing market share
- A company may increase market share without increasing revenues
- A company may maintain same level of revenue YoY while the market grows (new players coming to the market)

... in all circumstances, apples should be compared to apples (for example, is it the same industry we are talking about? Apple is selling smartphone and computers...)

The various stages of growth

Illustration from Larry Greiner's Growth Model

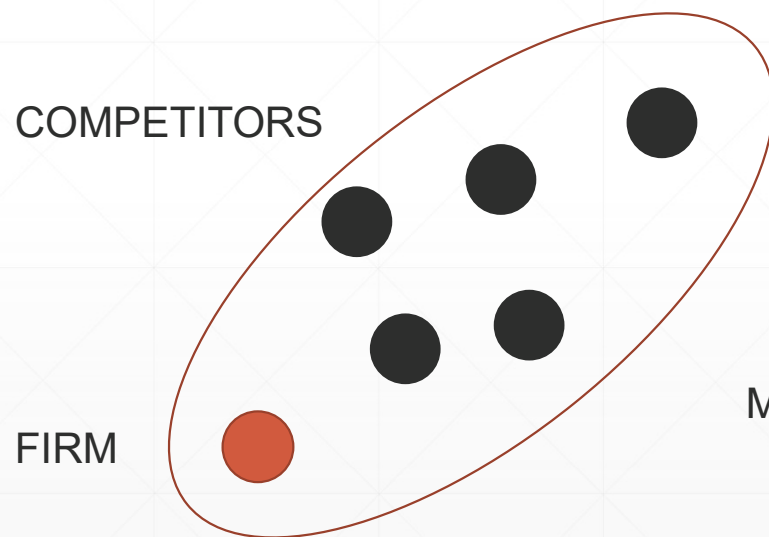


Source: Andrew Cuthbert https://www.researchgate.net/figure/The-Greiner-Growth-Model-adapted-from-Greiner-1997_fig7_286584740

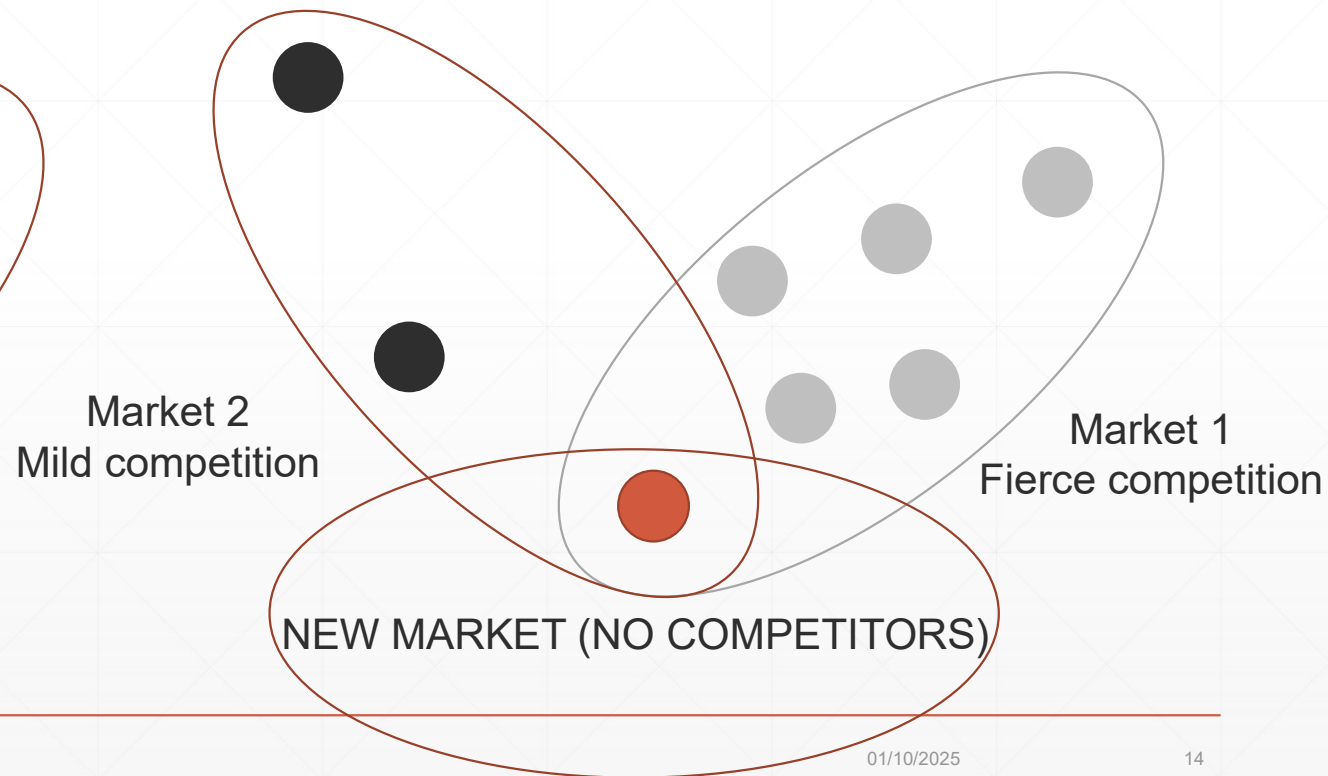
Growth Choices

Where to go?

SITUATION 1: SINGLE MARKET



SITUATION 2: MULTIPLE MARKETS



Growth choices

Groupe Bouygues - discussion



- Established 1952 as a construction company
 - By early 1980 – diversified construction, real estate and infrastructure company
- 1987 – enters media market (television) with TF1
- 1994 – enters telecoms market with Bouygues Telecom (3rd licensed mobile operator)

Growth choices

Tata Group - discussion



- Established 1868
- First: trading company
- 1907 : Tata Steel
- 1911 : Indian Institute of Science
- 1945 : Tata Motors
- 1968 : Tata Consultancy Services
- 2021: BigBasket ...
- Today : 29 publicly listed Tata Group companies with a combined market capitalisation of ₹24 trillion (lakh crore) (\$300 billion) as of July 2023 (Source: Wikipedia)

Growth choices

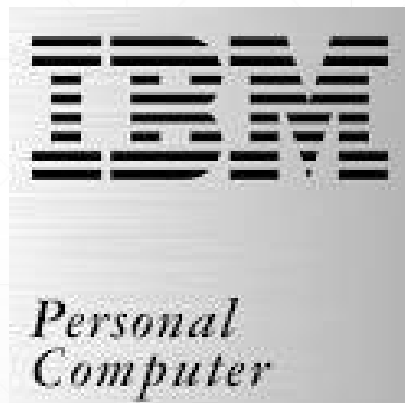
IKEA - discussion



- 1943 – established in Sweden as mail order delivery service, started selling furniture 5 years later
- 1960 – first stores outside Sweden
- 1970 – first stores outside Scandinavia
- 1980 – expansion to Europe and USA
- 2010 – Latin America

Growth choices

IBM PC - discussion



- In the early days of the PC, several platforms co-existed (Amstrad, Commodore, Osborne, ZX Spectrum, ...) all running on CP/M as an OS
- In 1980, IBM selected MS-DOS (from Microsoft) as an OS for its PC product
- The growing base of DOS/IBM users encouraged software developers to write programs for this platform, which in turn, increased dramatically the penetration of the IBM PC
- In the 1990s, MS-DOS (and subsequently, Windows) became the dominant OS in the PC market



Growth Choices

Local Markets vs Global Markets

LOCAL MARKETS

- Same language (culture)
- Multiple markets (by constraint) (ex: Bouygues)
- Diversification and, possibly differentiation and specialization
 - Economies of scope

GLOBAL MARKETS

- Multiple languages (cultures)
- Possible to operate in same market (ex: IKEA)
 - Economies of scale
- Diversification (ex: Tata)
 - Economies of scope

LOCAL MULTIPRODUCT

GLOBAL SINGLE PRODUCT

GLOBAL MULTIPRODUCT

Company Growth

- Companies grow as their market share and/or presence increases
- There are two types of company growth:
 - Internal (endogenous) – the company's size and market share increases because of internal efficiencies, effective marketing/sales, advertising, innovation in products and services
 - External (exogenous) – the company's size and market share increases due to mergers and acquisitions, i.e. integration of other companies

Market Growth and Company Growth

Internal Growth

- When the market is growing, the company's growth should be somehow linked to the growth of the market
 - Example: the market is growing 10% YoY, my company is only growing 2% pa. Is there a problem?
- In a growth environment, the challenge of the company is to capture market share, through:
 - Marketing & Sales
 - Product & Service innovation
 - Internal efficiencies

Internal Growth Discussion



NOKIA

- Nokia used to be the world leader in mobile phones manufacturing, up until 2010
- The company nearly ceased to exist, because missing on the smartphone revolution, initiated in 2007 by Apple with the iPhone

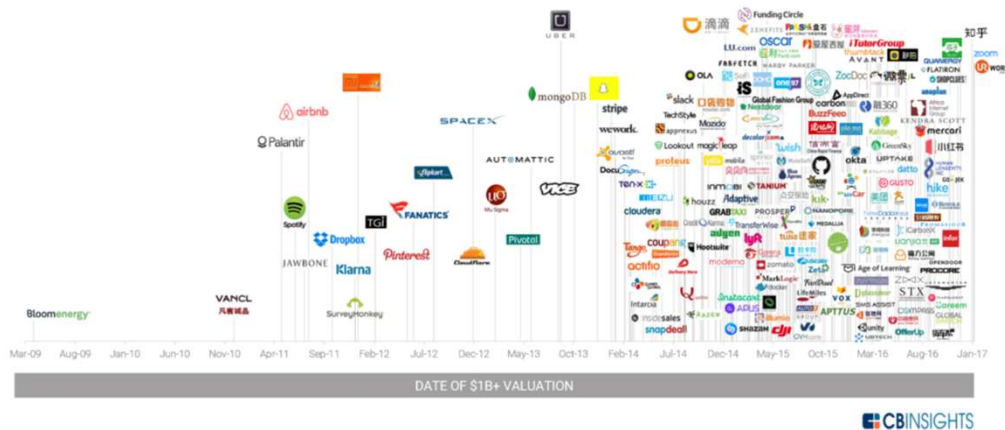
MICROSOFT

- Microsoft was launched in the late 70s, its first product was the MS-DOS operating system for the emerging PC market
- Then it developed the office management application suite, games, networking; and eventually MS-DOS became Windows
- Today, they are a key player in the cloud market, their cloud flagship product is Azure

Business Dynamics

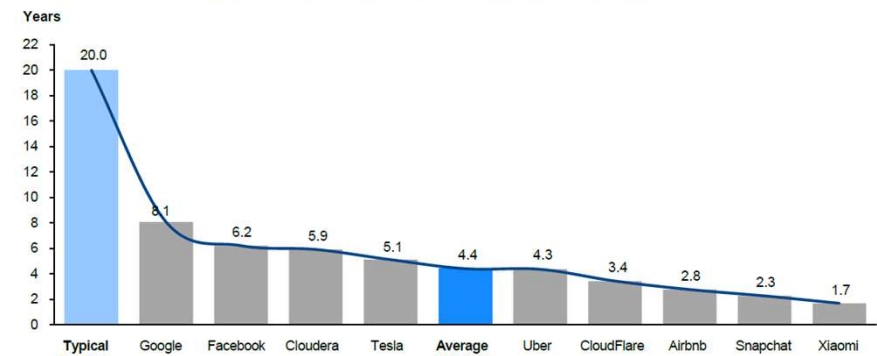
Company growth and firm value - Illustration

THE INCREASINGLY CROWDED UNICORN CLUB: PRIVATE COMPANIES VALUED AT \$1B+ as of 1/31/2017



Source: <https://www.cbinsights.com/research/increasingly-crowded-unicorn-club/>

Figure 2: Time to reach a valuation of \$1 billion or more



Source: Accenture

Source: World Economic Forum, Accenture. 2016 Report

Growth

Diminishing and Increasing Returns

DIMINISHING RETURNS

In traditional markets, limitations occur because:

- Access to inputs (farmland, ore extraction facilities, production means and workforce, ...) get scarce
- Number of consumers, regional demand, ... are either steady or diminish over time

... causing companies to face **diminishing returns**

INCREASING RETURNS

In other markets (mostly, technology markets):

- Market instability may cause one product to get adopted more rapidly than others (ex: MS-DOS, Google Search)
- When such a thing happens, the other products are marginalized (edged-out)

... causing the company of the adopted product to face **increasing returns**

“... diminishing returns hold sway in the traditional part of the economy—the processing industries. Increasing returns reign in the newer part—the knowledge-based industries.” **W. Brian Arthur (1996)**

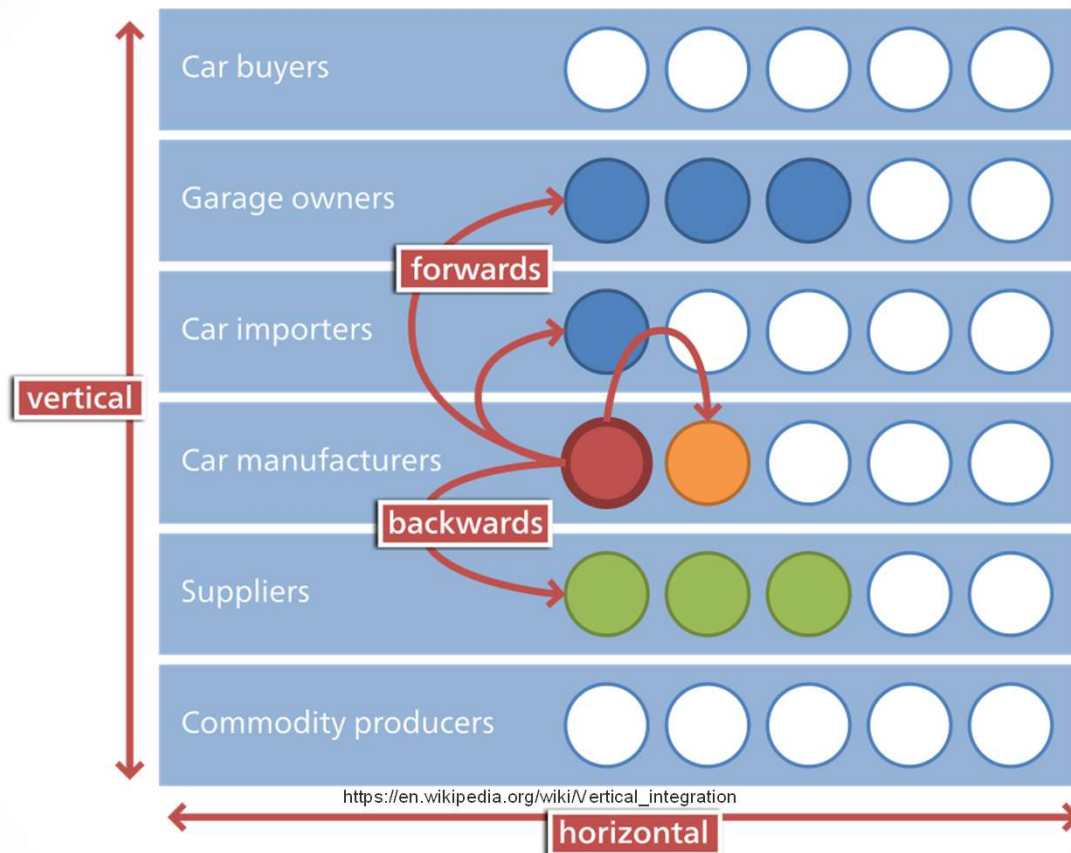
Company Growth - The case of the GAFAM Discussion



- Google, Apple, Facebook, Amazon, Microsoft have benefitted from unprecedented growth in the 2010s and, recently, during the COVID-19 pandemic
- In present days (from 2023 until today), they face, like any other company, the global economic slowdown
- As a consequence, they differ investments and start taking operational efficiency measures
- Among them, Apple and Microsoft are the only ones to continue showing solid results; due to, perhaps, their mixed business model (HW and services) and lower exposure to ad revenues

External Growth

- In some circumstances, a company may decide to grow through external acquisitions
- In this type of situations, the company may choose to acquire (or to integrate) another company, on the following criteria:
 - Complementarity of skills and core competencies
 - Combined market value
 - Combined capitalization
 - Access to strategic technologies and/or markets



Vertical and Horizontal Integration

Vertical Integration is the situation where the supply chain of a product is controlled by a single company.

Horizontal Integration, in contrast, occurs when a company produces several products related to one-another.

Vertical Integration

Example: Apple

- RETAIL
 - Apple Stores
 - SERVICES
 - iTunes, iCloud
 - SOFTWARE
 - iOS, plus many other
 - HARDWARE
 - Essential components of the PCs and the iPhone
- Apple = a vertically integrated company
 - It controls all the major critical parts of the chain used to make and sell products:
 - It builds hardware,
 - It owns its essential software programs,
 - Builds with web services on top
 - Controls the selling experience through its own retail stores

Horizontal Integration

Example: Facebook in social network apps

A SOCIAL NETWORKS is a software application allowing users to connect, interact and share content between themselves. Its main ingredients are:

- **MESSAGING**
 - Communications platform (text)
 - **VIDEO/AUDIO SHARING**
 - Exchange of video and audio files
 - **SOCIAL NETWORKING**
 - Allows P2P and broadcasting
 - **SUPPORTING SOFTWARE**
 - VPN, Secure communications, encryption, file sharing, ...
- Facebook has conducted a consistent horizontal integration strategy in social network apps, over the years
 - It has acquired companies in all relevant areas of social networking apps, such as:
 - FriendFeed (2009)
 - Drop.io (2010)
 - Instagram (2012)
 - WhatsApp (2014)
 - Mappilary (2020)

Vertical and Horizontal Integration

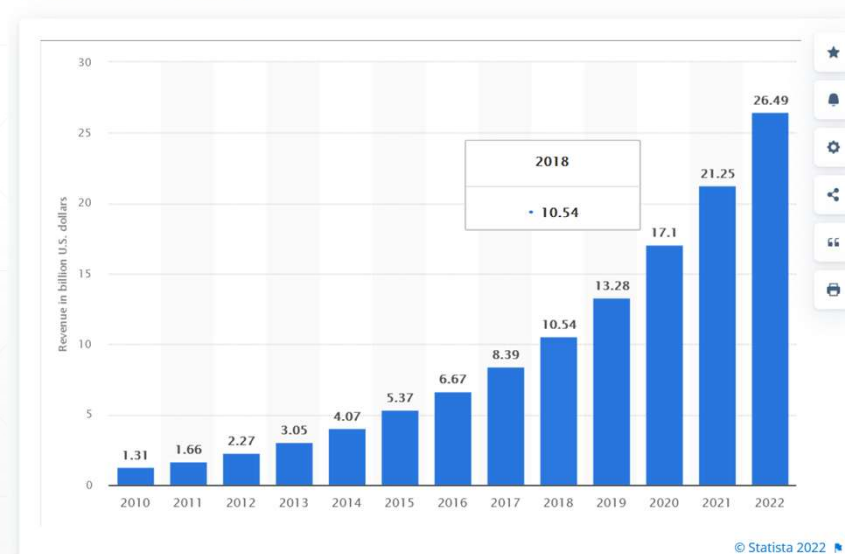
Example: Salesforce

Salesforce's recent acquisitions

- *MuleSoft* (March 2018)
- *Datorama* (July 2018)
- *Rebel Mail* (October 2018)
- *Griddable.io* (January 2019)
- *MapAnything* (April 2019)
- *Tableau* (June 2019)
- *Vlocity* (June 2020)
- *Slack* (December 2020)

Source: Wikipedia

Salesforce.com's revenue from 2010 to 2022
(in billion U.S. dollars)

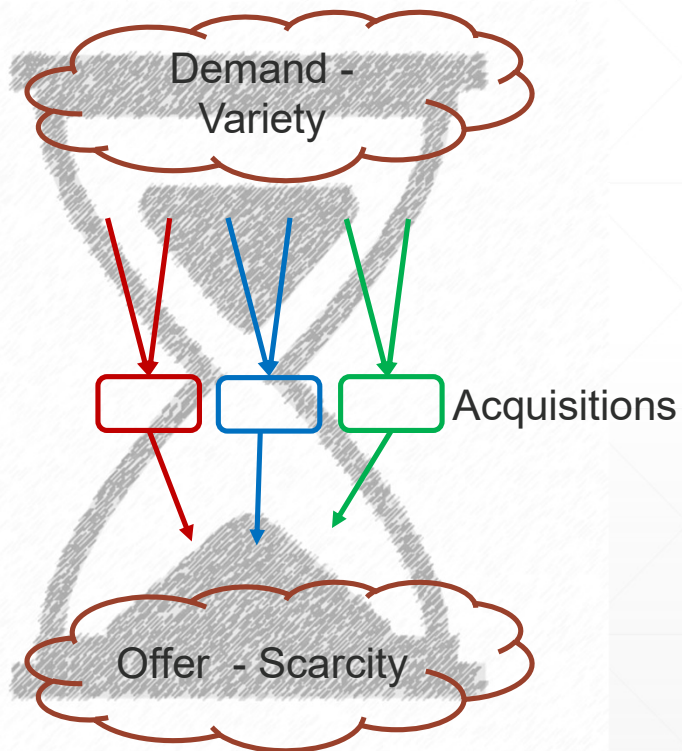


Source: <https://www.statista.com/statistics/211587/total-revenue-of-salesforce-since-2009/>



Acquisitions

Class Discussion – Impact on innovation



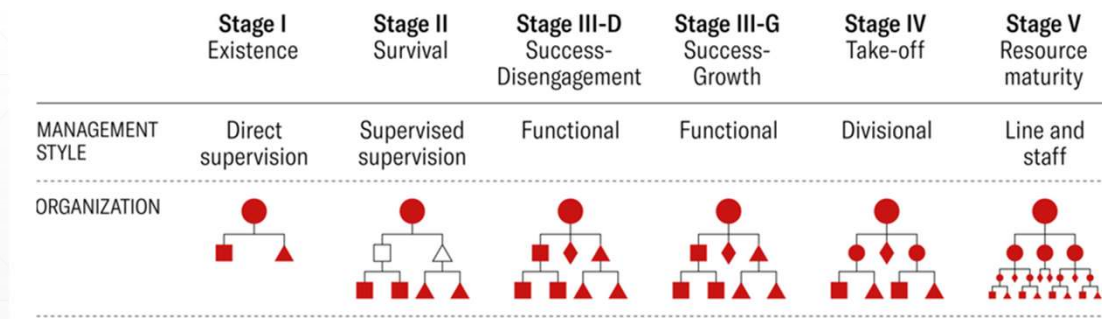
Company	Significant Acquisitions
Google	Android, Youtube, DeepMind, Waze, ...
Apple	Siri, Beats Music, Shazam, Intel (modems), ...
Facebook	Instagram, WhatsApp, Oculus VR, ...
Amazon	Alexa Internet, Audible, Zappos, Whole Foods Market, ...
Microsoft	Skype, Nokia, LinkedIn, GitHub, Nuance, ... ACTIVISION BLIZZARD

Growth Summary 1

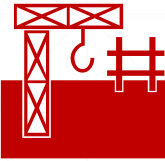
- Most companies experience both sustained growth stages, and stages where growth diminishes or even stagnates
- In high-technology markets, some companies even experience « hyper-growth » periods, i.e. stages when the demand is extremely strong
- Any company should constantly assess its growth situation, in order to be prepared for changes in market conditions or take advantage of growth opportunities in adjacent markets

Growth Summary 2

- Whether growing internally or through acquisitions, companies often adjust their organizations in order to take into account changing conditions
- Organizational changes and adjustments in order to ensure consistency between size, structure and market conditions are management tasks (more in classes 5 & 6)



Source: <https://hbr.org/1983/05/the-five-stages-of-small-business-growth>



Class Assignment

Start from the idea that all companies face several stages of growth, from start-up to large, established, enterprise. These phases can be described in several ways, for example:

- A start-up turning a concept into a product, then
- Selling its product to its first clients
- Expanding the initial client base, for example : Going international
- Diversifying the initial product line, ...

For our upcoming class assignment, please:

1. Choose a company in an industry of your own choice and try to describe its various growth stages, from its inception until today.
2. Compare/contrast the industry where the company has started versus the industry(ies) where it is present today

Other forms of business dynamics

Outsourcing

- As companies grow, at some point in time the question that arises is whether or not to continue doing certain types of activities internally, or relying on outside companies to do them, on behalf of the requesting company
- This type of inter-company relationship is called **outsourcing**
- Definition:
 - **“Outsourcing is the process of paying to have part of a company's work done by another company”** Source: Cambridge Online Dictionary

Examples of company functions candidates for outsourcing

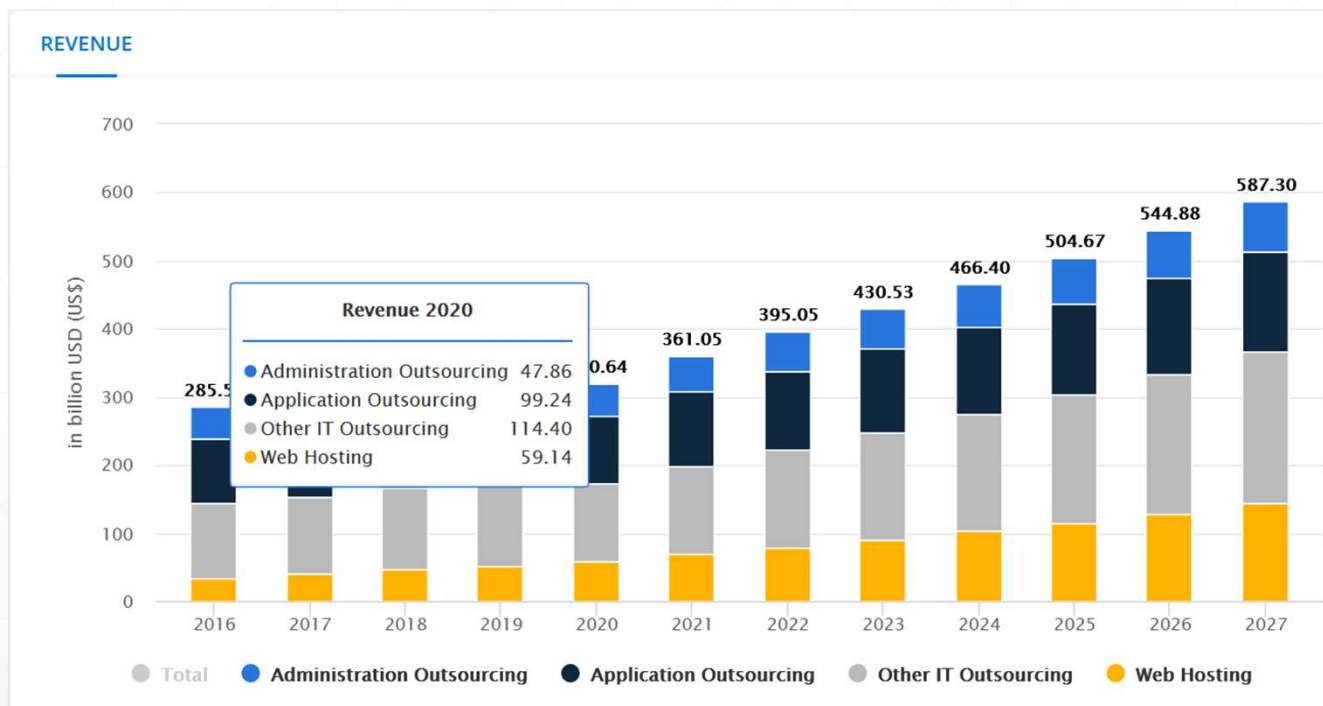
SUPPORT ACTIVITIES

- Marketing (example: campaigns, advertising)
- Legal (example: specific advisory services)
- Accounting (example: financial audit)
- HR (example: payroll)
- Facilities (example: cleaning, office rental & housekeeping)

OPERATIONS & TECHNOLOGY

- Business Process Outsourcing
 - Call centers
- IT & Technology
 - Systems in production
 - Environment and web hosting
 - Network Upgrade & Maintenance

IT Outsourcing Discussion



Source: <https://www.statista.com/outlook/tmo/it-services/it-outsourcing/worldwide#revenue>

The Business Case for Outsourcing Discussion



PROS

- Increased efficiency through specialized suppliers
- Focus on core processes and competencies
- « Streamlined » organization

CONS

- Potentially, diminishing the company's ability to leverage on strategic assets
 - Outsourcing call centers may end-up in losing direct contact with customers
 - Outsourcing company's databases may end-up in loss of significant customer knowledge
- Potentially, leading to increased costs
 - Change in pricing policy for cloud services (from a per volume charge to a per access charge, for example)

Other interfirm relationships

Class Discussion



Please elaborate on the potential reasons of a company to develop other types of inter-firm relationships, besides M&A (acquisitions) and outsourcing.

Strategic reasons:

- Access to specific forms of technologies
- Access to certain markets
- Developing strategic innovations
- Protection of common interests ...

Operational reasons:

- Lack of specific skill-sets
- IP (patents) considerations
- Knowledge sharing
- ...

Other interfirm relationships

- Innovation clusters & ecosystems
- Alliances & Joint Ventures
- Industry associations

Innovation Clusters and Ecosystems

Innovation Clusters

Clusters of Innovations (COI) have been defined in 2015 as "global economic hot spots where new technologies germinate at an astounding rate and where pools of capital, expertise, and talent foster the development of new industries and new ways of doing business.

Source: Wikipedia

Innovation Ecosystems

"An innovation ecosystem is the evolving set of actors, activities, and artifacts, and the institutions and relations, including complementary and substitute relations, that are important for the innovative performance of an actor or a population of actors."

Source: Ove Granstrand, Marcus Holgersson (2020)

Innovation clusters

GII WW innovation clusters 1-15

Biggest Global Innovation Index (GII) S&T Clusters

Cluster rank	Cluster name	Economy
1	Tokyo–Yokohama	JP
2	Shenzhen–Hong Kong–Guangzhou	CN/HK
3	Beijing	CN
4	Seoul	KR
5	San Jose–San Francisco, CA	US
6	Shanghai–Suzhou	CN
7	Osaka–Kobe–Kyoto	JP
8	Boston–Cambridge, MA	US
9	New York City, NY	US
10	Paris	FR
11	San Diego, CA	US
12	Nagoya	JP
13	Nanjing	CN
14	Hangzhou	CN
15	Los Angeles, CA	US

GII WW innovation clusters 16-30

16	Wuhan	CN
17	Washington, DC–Baltimore, MD	US
18	Seattle, WA	US
19	London	GB
20	Daejeon	KR
21	Houston, TX	US
22	Xi'an	CN
23	Cologne	DE
24	Munich	DE
25	Amsterdam–Rotterdam	NL
26	Taipei–Hsinchu	TW*
27	Chicago, IL	US
28	Stuttgart	DE
29	Chengdu	CN
30	Tel Aviv–Jerusalem	IL

Source: https://www.wipo.int/pressroom/en/articles/2022/article_0010.html

Innovation clusters

- Positive externalities arise from concentration, in one location, of:
 - Existing city or regional infrastructure
 - Companies of all sizes
 - Research centers, Laboratories, Universities
 - Government S&T bodies
 - International organizations (standards, industry, ...)
 - ...

A very surprising result...

Class discussion

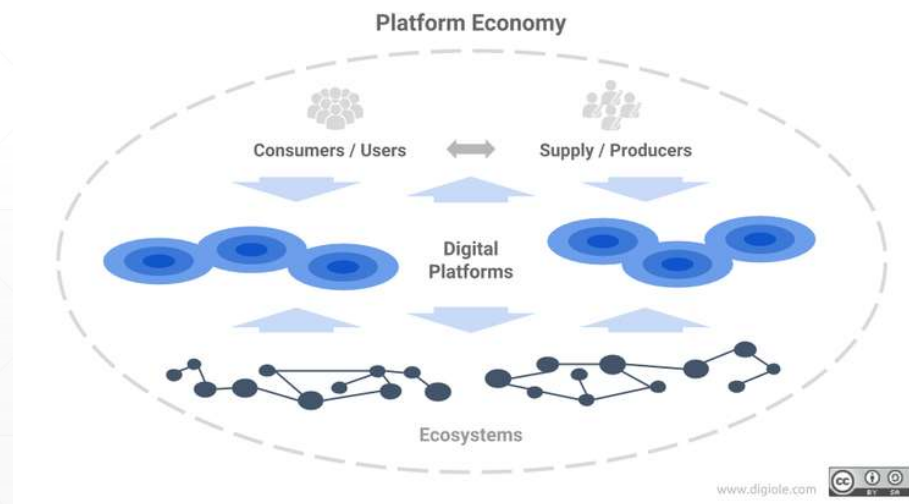


51	Zürich	CH/DE	1
53	Milan	IT	0
54	Toronto, ON	CA	-5
59	Copenhagen	DK	-4
60	Bengaluru	IN	0
71	São Paulo	BR	0
73	Helsinki	FI	-1
76	Vienna	AT	-1
92	Warsaw	PL	0
93	Lausanne	CH/FR	-3
99	Basel	CH/DE/FR	7

Source: https://www.wipo.int/export/sites/www/pressroom/en/documents/2022gii_clusters_chapter.pdf

Innovation ecosystem

- A network of partners, of all kinds and sizes, both companies and individuals, who work together to promote, develop, and/or implement innovative solutions to business problems



Source: https://en.wikipedia.org/wiki/Platform_economy



Innovation Ecosystem salesforce - Discussion

- salesforce was amongst the first cloud companies to implement a comprehensive ecosystem
- salesforce's ecosystem (as of 2022) is comprised of:
 - **Business partners** - consulting partners, digital agencies, independent software vendors, and resellers that bring apps and expertise to solve any customer challenge
 - **Experts** – the company has (as of Oct. 2021, according to company report): “132,000 credentialed Salesforce experts »
 - **The Salesforce AppExchange** – is, according to the company, “the #1 trusted enterprise cloud marketplace, featuring more than 6,900 apps and experts”
 - **The Salesforce developer community** – is, according to salesforce, “a million strong”, with access to “the Salesforce Customer 360 platform and a toolbox of App Cloud services”

Source: <https://www.salesforce.com/blog/salesforce-ecosystem-explained/>

Innovation Ecosystem

Social networks & e-commerce in China - Discussion



- China's digital ecosystem relies on local social networks and e-commerce sites
- Each major SN or e-commerce site develops its own array of applications, helping its users to accomplish a variety of activities across the consumer or user lifecycle
- For example:
 - WECHAT – launched in 2011 as a messaging app, today has over a million mini-apps helping its users to address all the daily needs (order taxi, book reservations, interact with local stores and government administrations, etc)
 - ALIPAY and ANT FINANCIAL – payment solution developed by Alibaba. It covers all the payment requirements for Alibaba, Taobao and TMall

Alliances & Joint Ventures

“A joint venture (JV) is defined as “any form of cooperative arrangement between two or more independent companies which leads to the establishment of a third entity organizationally separate from the ‘parent’ companies”. In turn, an alliance is an agreement between two or more firms to cooperate in any value-chain activity from R&D to sales which may or may not imply equity investments. Thus, every joint venture is an alliance but not every alliance is a JV.” (Source: Christiane Prange & Ulrike Mayrhofer. Alliances and Joint Ventures. Encyclopedia of Management, Wiley 2013)”

- Joint Venture examples:
 - Hulu - (The Walt Disney Company, 21st Century Fox, Comcast with 30 % each, Warner Media (AT&T) with 10 %)
 - Caradigm – GE and Microsoft, in healthcare
- Alliance examples:
 - Uber and Spotify, Red Bull and GoPro

Alliances & Joint Ventures

- WAYMO (Google's self-driving car project)
 - Partnerships with multiple vehicle manufacturers to integrate Waymo's technology, including with Mercedes-Benz Group AG, Nissan-Renault, Stellantis, Jaguar Land Rover, and Volvo
- NOKIA's HERE Maps
 - Were acquired in 2015 by a consortium of German car makers, including Daimler, BMW and Audi

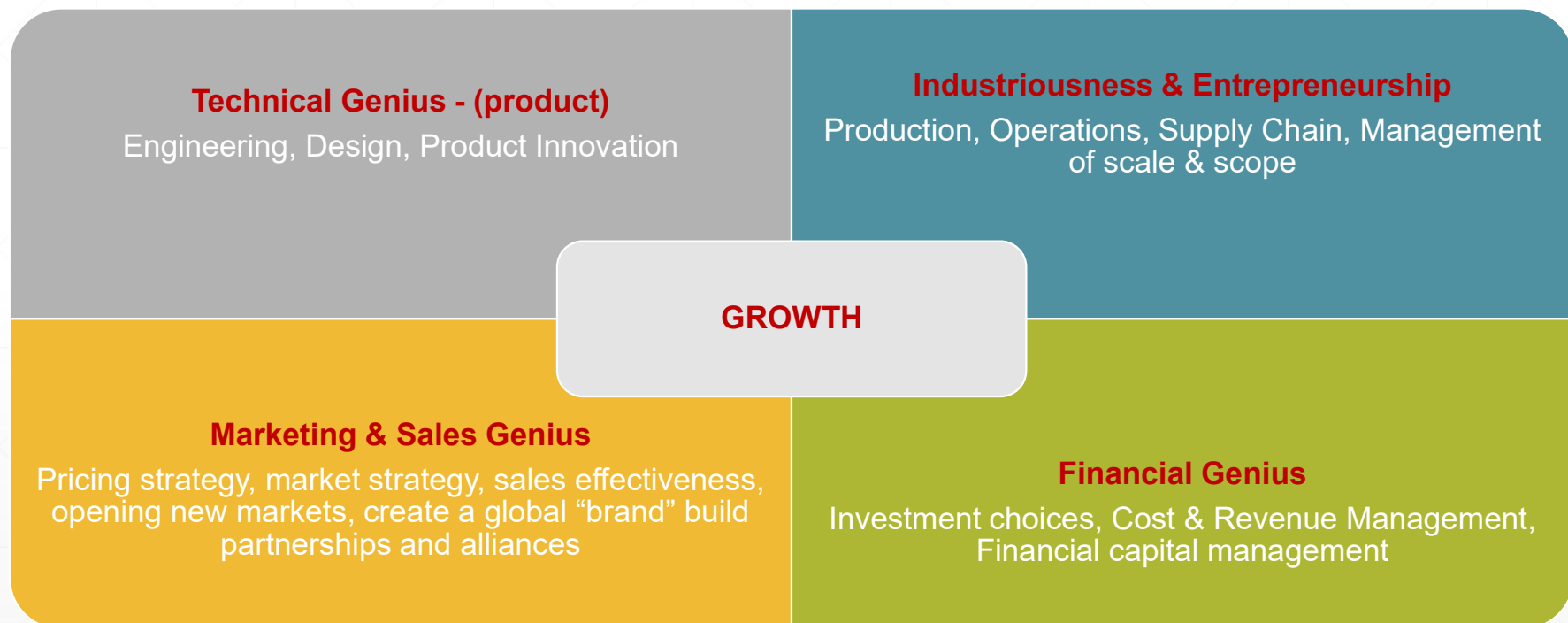
Alliances & Joint Ventures

Co-opetition

- Alliances and JVs raise the question of how and why companies, who are competitors, resort to joining forces in certain circumstances
- This phenomenon is known as co-opetition (a contraction of **cooperation** and **competition**) and means “*cooperating with a competitor to achieve a common goal or get ahead* » and may be « ... a way to save costs and avoid duplication” (source: <https://hbr.org/2021/01/the-rules-of-co-opetition>, Adam Brandenburger and Barry Nalebuff)
- Examples:
 - Pfizer BioNTech Covid-19 vaccine
 - Login to various sites via social media credentials
 - Amazon Prime and Netflix (as a customer of AWS)

What does it take to...?

Start-Up | Increase in size | Take Global



Industry Associations

Definition:

- « An organization that supports companies and employers of a particular type of industry and protects their rights” (Cambridge Online Dictionary)

Examples:

- **United States: IT, communications and electronics**
 - American Council for Technology and Industry Advisory Council, CompTIA (Computing Technology Industry Association), Consumer Technology Association, CTIA (– The Wireless Association), Electronic Industries Alliance, International Interactive Communications Society, International Webmasters Association

Industry Associations (continued)

Examples

- France:
 - MEDEF (Mouvement des Entreprises de France)
 - Chambre de commerce et d'industrie
 - UIMM (Union des Industries des Métiers de la Métallurgie)
 - FFB (Fédération Française du Bâtiment)
 - ...

Enterprise Essentials Class # 3

Class Summary



- In its journey, a business organization may change size (grow), depending on the overall growth of its environment (industry and market) and its own strategy
- From start-up to grown-up, the evolution of the company's size may raise additional strategic questions related to how to best adjust the company's indicators to the reality of its performance. From this perspective, relationships between company revenues and market size and share should be tightly monitored.
- In certain circumstances, internal growth may need to be complemented with external growth measures (mergers & acquisitions)
- In other circumstances, the business organization may choose to pay other companies to have part of its work done (outsourcing)
- Finally, a firm may choose to embrace other forms of inter-company relationships, such as being part of innovation clusters, forming innovation ecosystems, alliances, joint ventures; or joining industry associations or interest groups

Thank You!

Valeriu Petrulian