

Introduction to

GE/McKinsey
Matrix Portfolio Analysis
and
Boston Consulting Group (BCG) Matrix
Analysis

Prof. Dr. Reinhard Doleschal

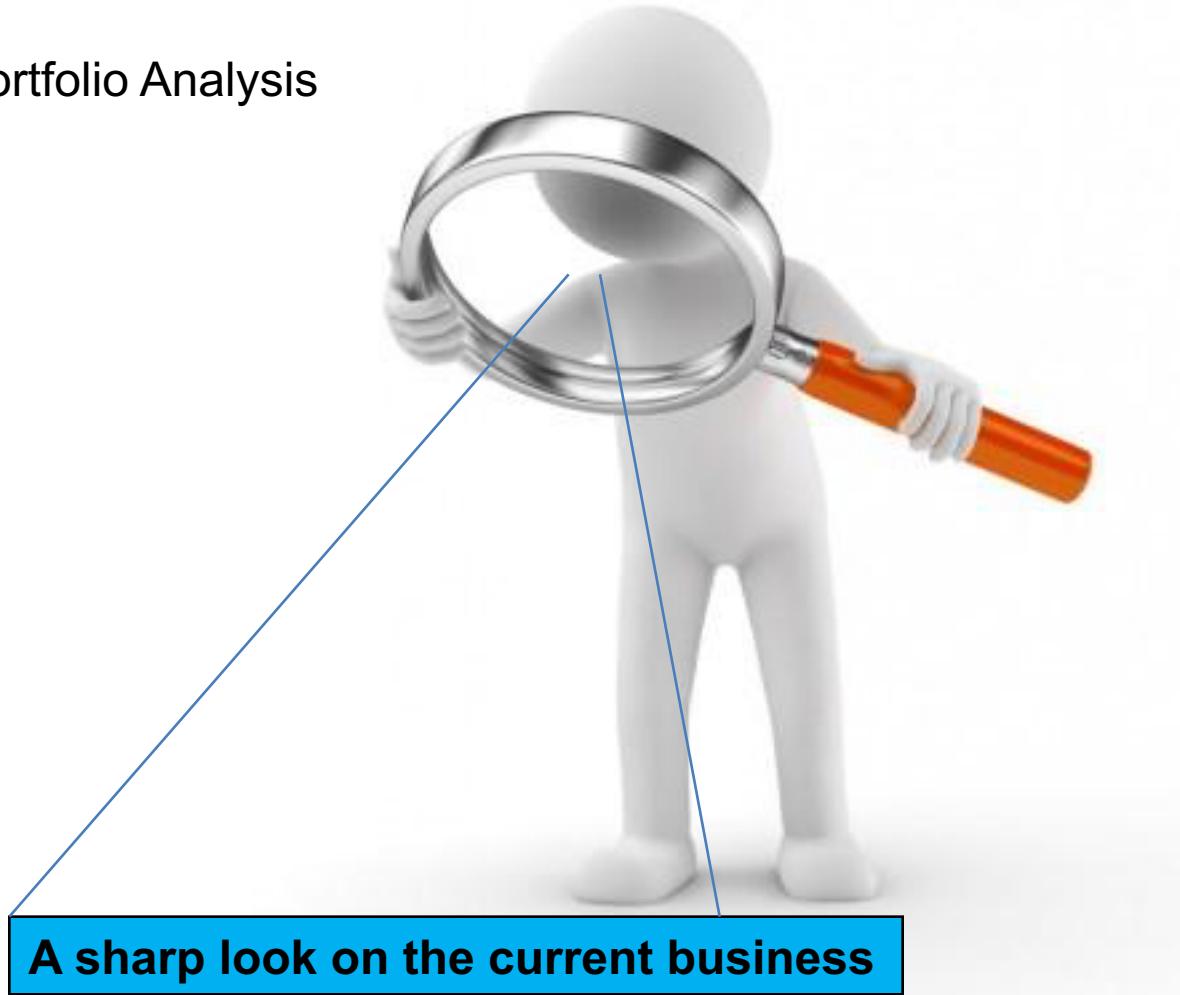
Online Schedule: IDS 20.04.2023, 2 pm – 4 pm (Prof. Doleschal)

2.00 pm – 2.50 pm	Portfolio Analysis (Introduction and Overview)
10 min	Coffee Break
3.00 pm – 4.00 pm	Portfolio Analysis (exercise)

Agenda

- **Introduction and Overview**
- **GE/McKinsey Matrix vs. BCG Matrix**
- **Aim of the GE/McKinsey Matrix Portfolio Analysis**
- **Procedure to get the GE/McKinsey Matrix Portfolio**
- **GE/McKinsey Matrix Portfolio Interpretation**

Portfolio Analysis

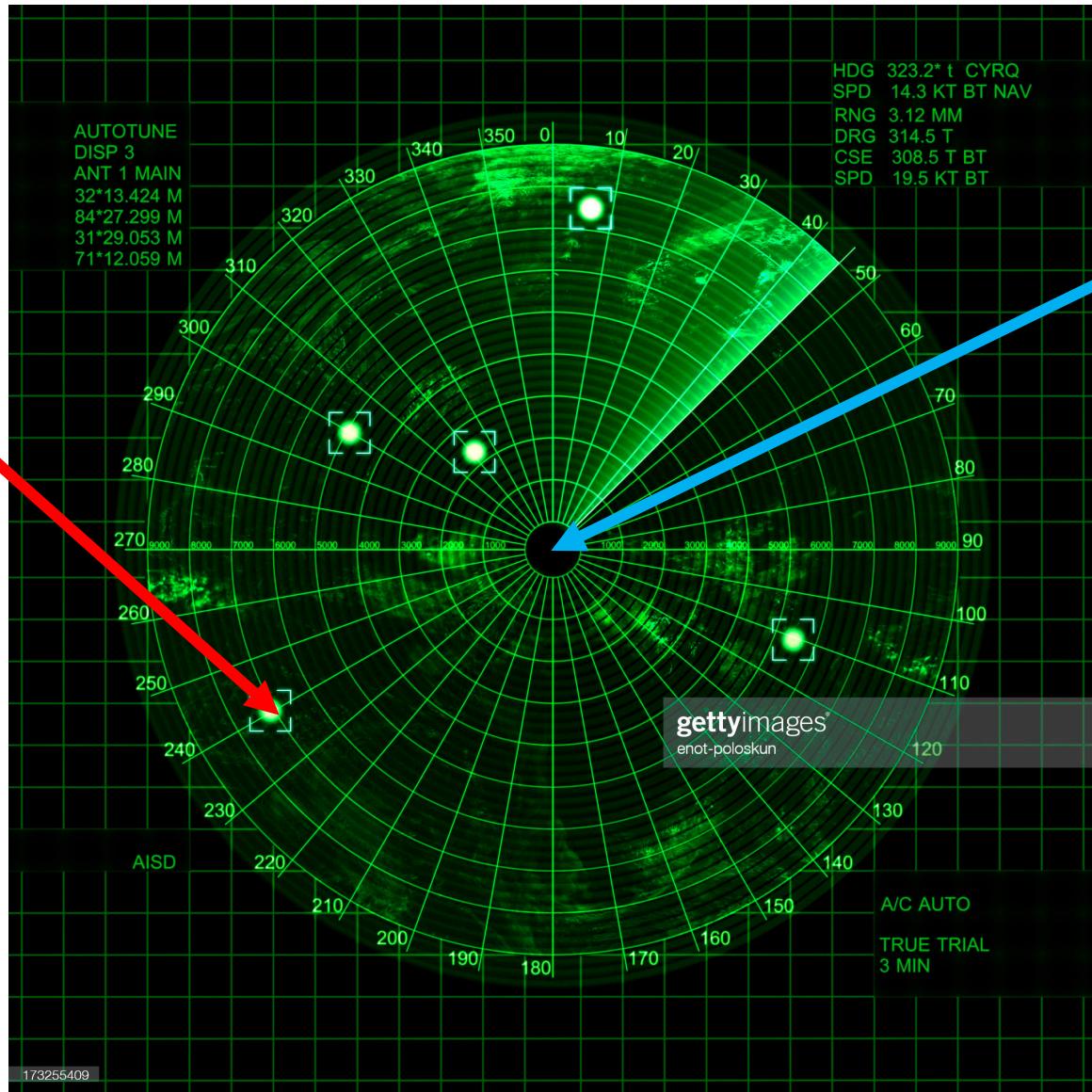


Market Profile & Competitiveness (Strength Analysis)

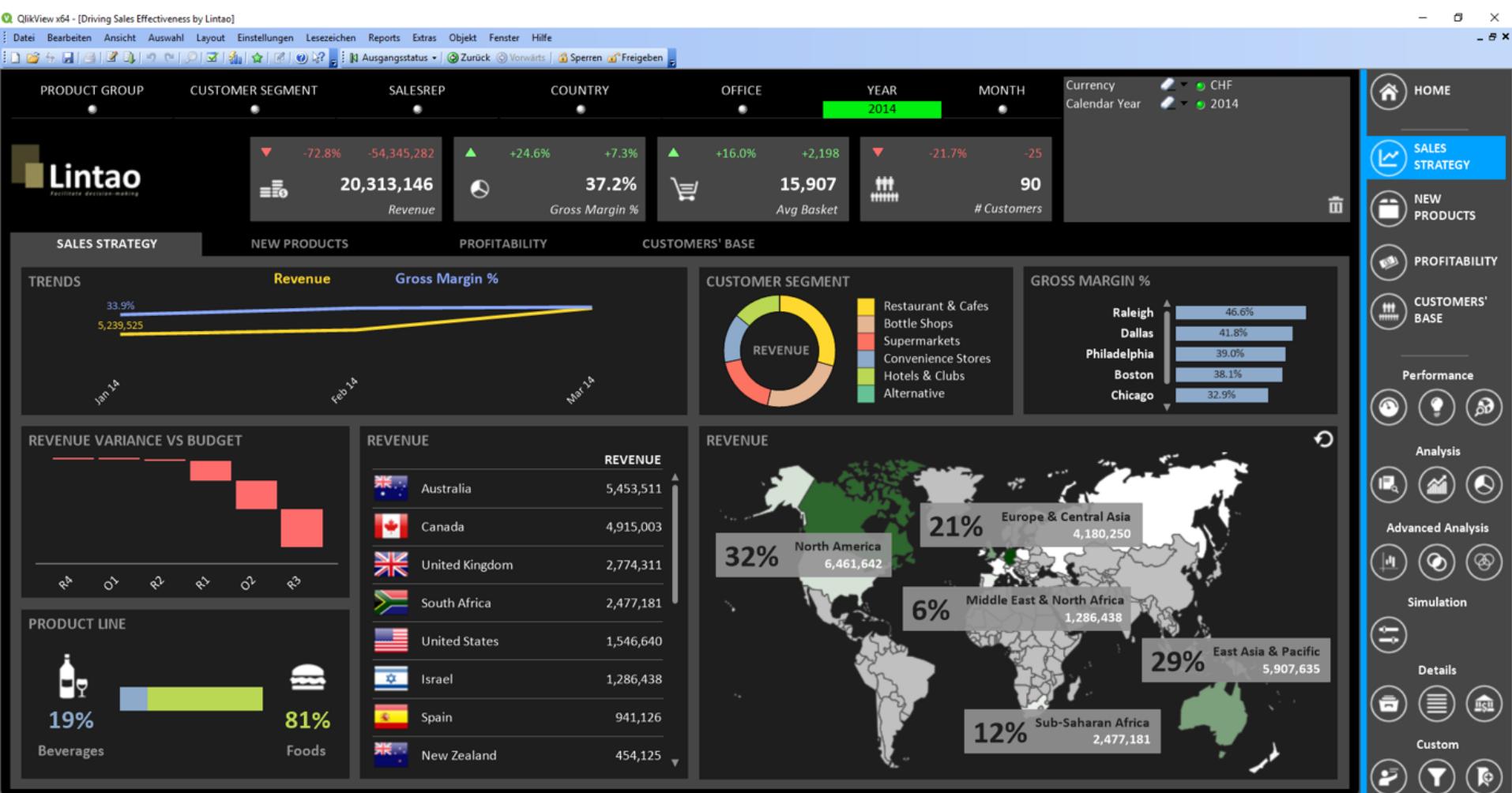
Portfolio Analysis works like a radar (local or global)

Competitor

My own business



Portfolio Analysis is connected with Key Performance Indicators (KPI)



Indicators for Market Attractiveness of an Strategic Business Unit (SBU) or product

What are the ...

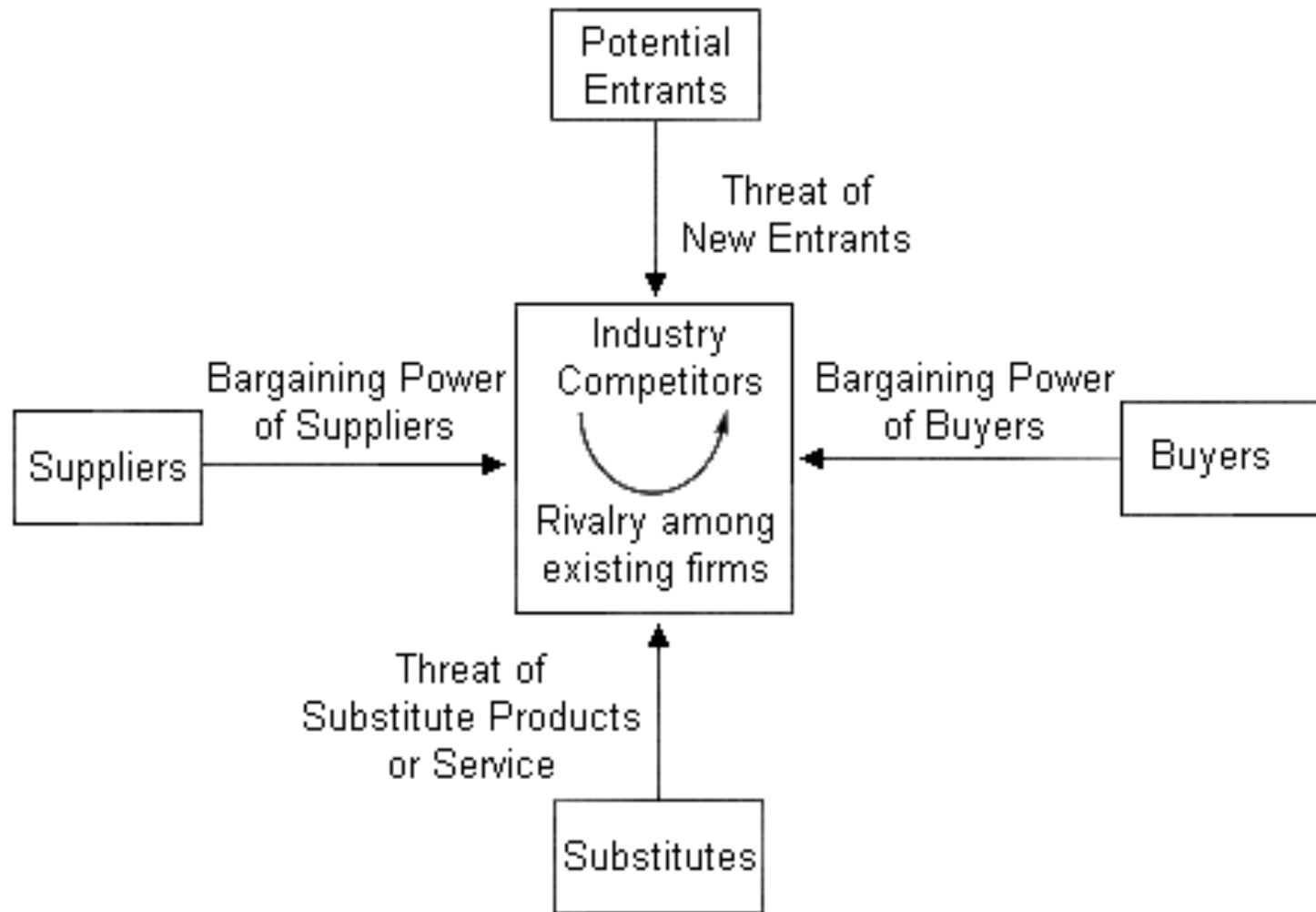
- Market Size (current volume)
- Market growth (last 2-5 years)
- Market profitability (input/output)
- Pricing trends (increasing/decreasing)
- Competitive intensity / rivalry (high/low – many/few)
- Overall risk of returns in the industry (PEST)
- Opportunity to differentiate products and services (customer needs)
- Segmentation / Fragmentation (market structure)
- Distribution structure (e.g. retail, direct, wholesale, online)

Indicators for Competitive Strength of an SBU

What are the ...

- Strength of assets and competencies (capital & HR & Know How (Management and employees))
- Relative brand strength (brand value)
- Market share (absolute and relative)
- Customer loyalty to the company (fluctuation)
- Relative cost position (cost structure compared with competitors)
- Distribution strength
- Record of technological or other innovation (patents/year and new products in the last 2-5 years)
- Access to financial and other investment resources (Relationship to investors and banks)

Basics: Porter's five forces model of competition – THE ECO SYSTEM



Basics:

Porter's Five Forces Model of Competition

Determinants of Supplier Power

- Supplier concentration
- Availability of substitute inputs
- Importance of suppliers' input to buyer
- Suppliers' product differentiation
- Importance of industry to suppliers
- Buyers' switching cost to other input
- Suppliers' threat of forward integration
- Buyers' threat of backward integration

Threat of New Entrants

- Barriers to entry
 - Economies of scale
 - Product differentiation
 - Capital requirements
 - Switching cost to buyers
 - Access to distribution channels
 - Other cost advantages
 - Government policies
- Incumbents' defense of market share
- Industry growth rate

Rivalry Among Existing Firms

- Number of competitors (concentration)
- Relative size of competitors (balance)
- Industry growth rate
- Fixed costs vs. variable costs
- Product differentiation
- Capacity augmented in large increments
- Buyers' switching costs
- Diversity of competitors
- Exit barriers
- Strategic stakes

Determinants of Buyer Power

- Number of buyers relative to sellers
- Product differentiation
- Switching costs to use other product
- Buyers' profit margins
- Buyers' use of multiple sources
- Buyers' threat of backward integration
- Sellers' threat of forward integration
- Importance of product to the buyer
- Buyers' volume

Threat of Substitute Products

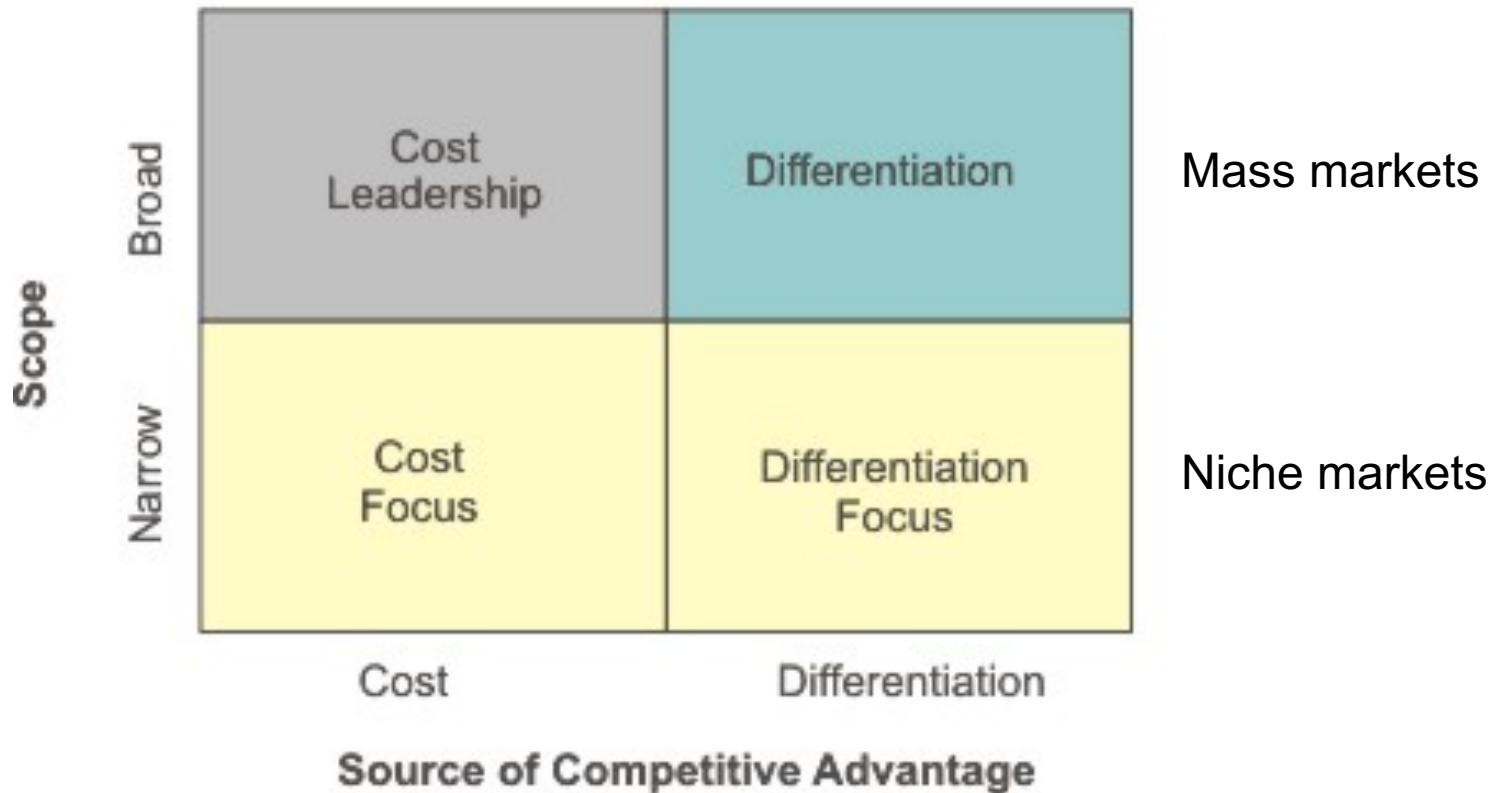
- Relative price of substitute
- Relative quality of substitute
- Switching costs to buyers

Basics: Strategic Management Pyramid



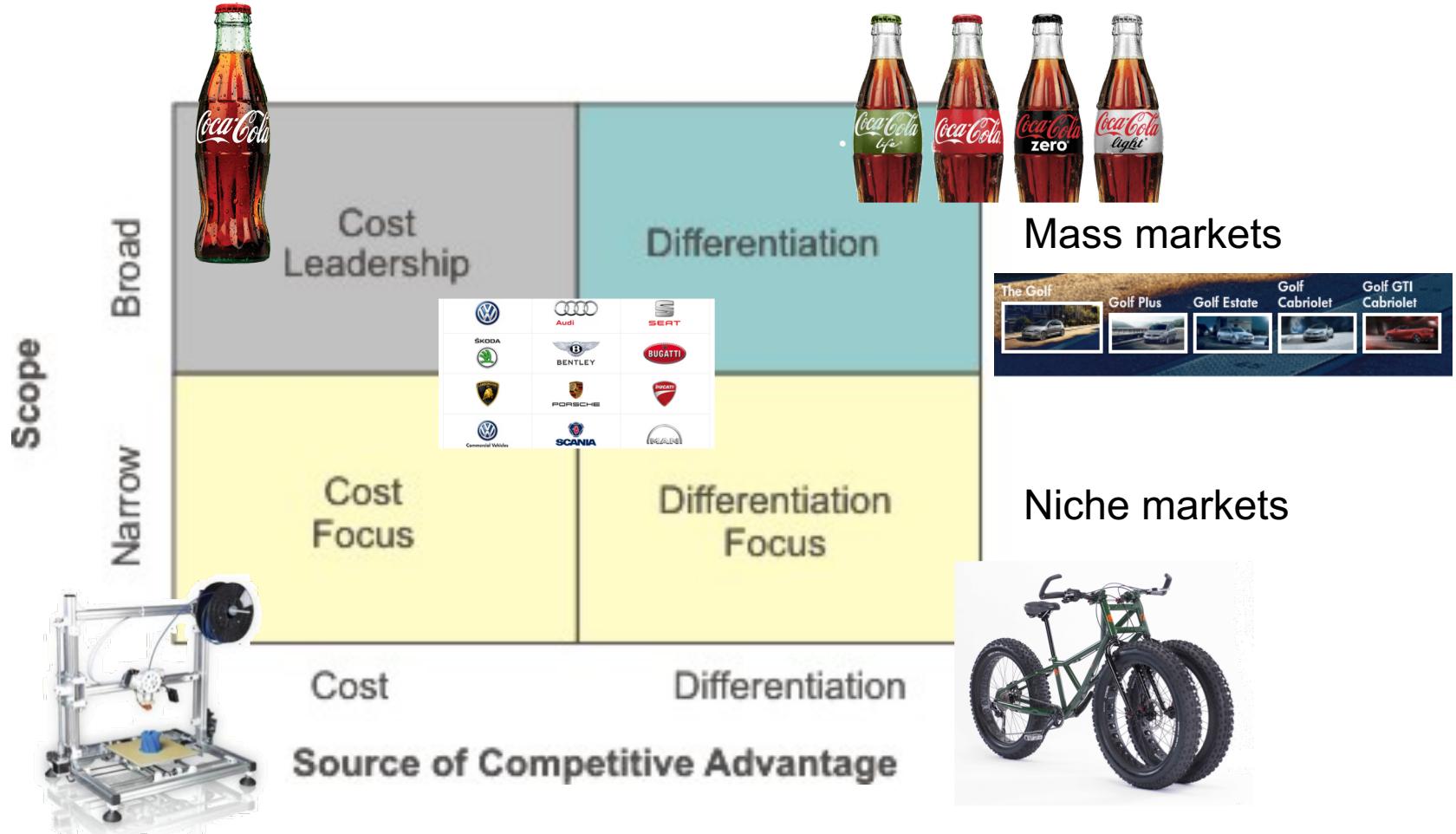
Source: <http://www.bluesummit.net/images/sm-pyramid.gif>

Basics: Porter's Generic Business Strategies – INTERNAL FOCUSING



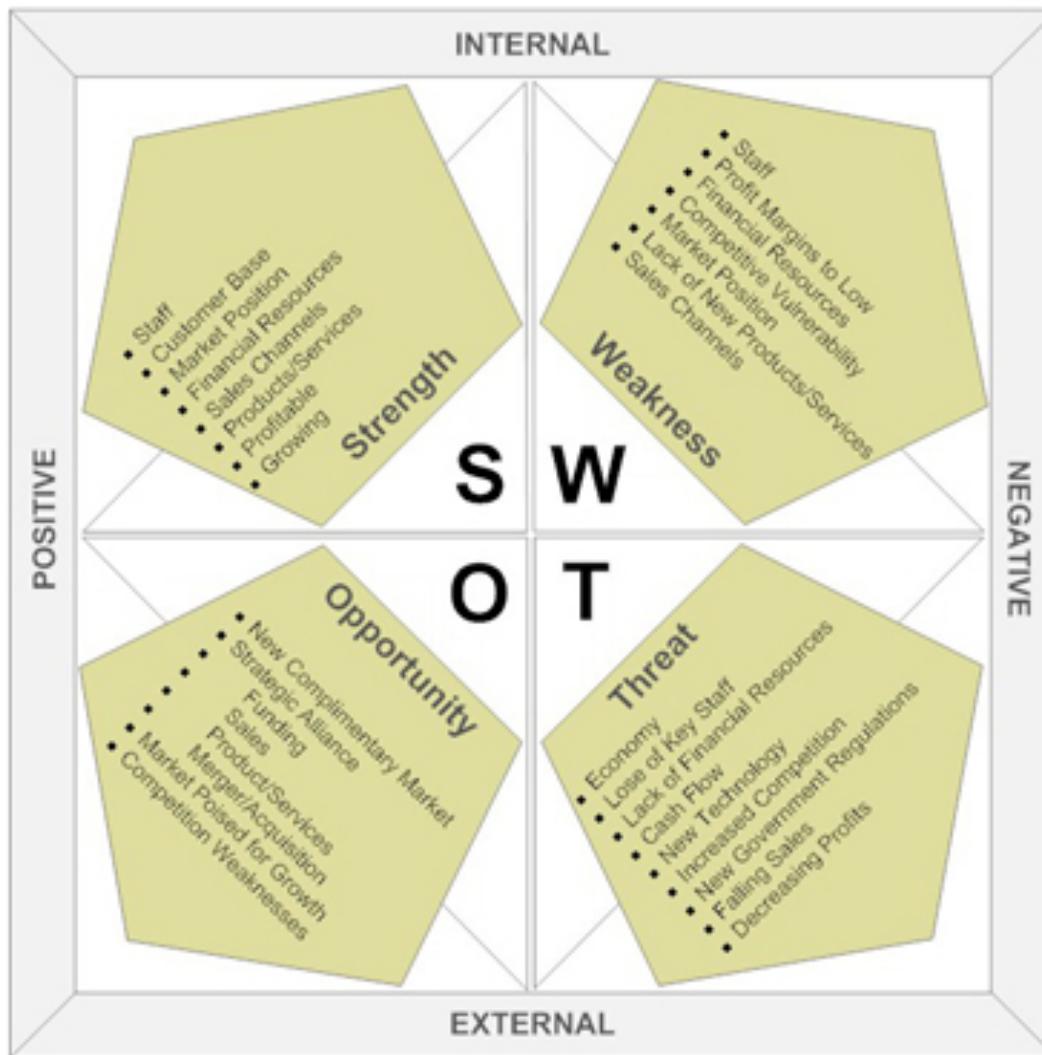
Porter called the generic strategies "Cost Leadership" (no frills), "Differentiation" (creating uniquely desirable products and services) and "Focus" (offering a specialized service in a niche market). He then subdivided the Focus strategy into two parts: "Cost Focus" and "Differentiation Focus". These are shown in Figure above.

Basics: Porter's Generic Business Strategies – INTERNAL FOCUSING



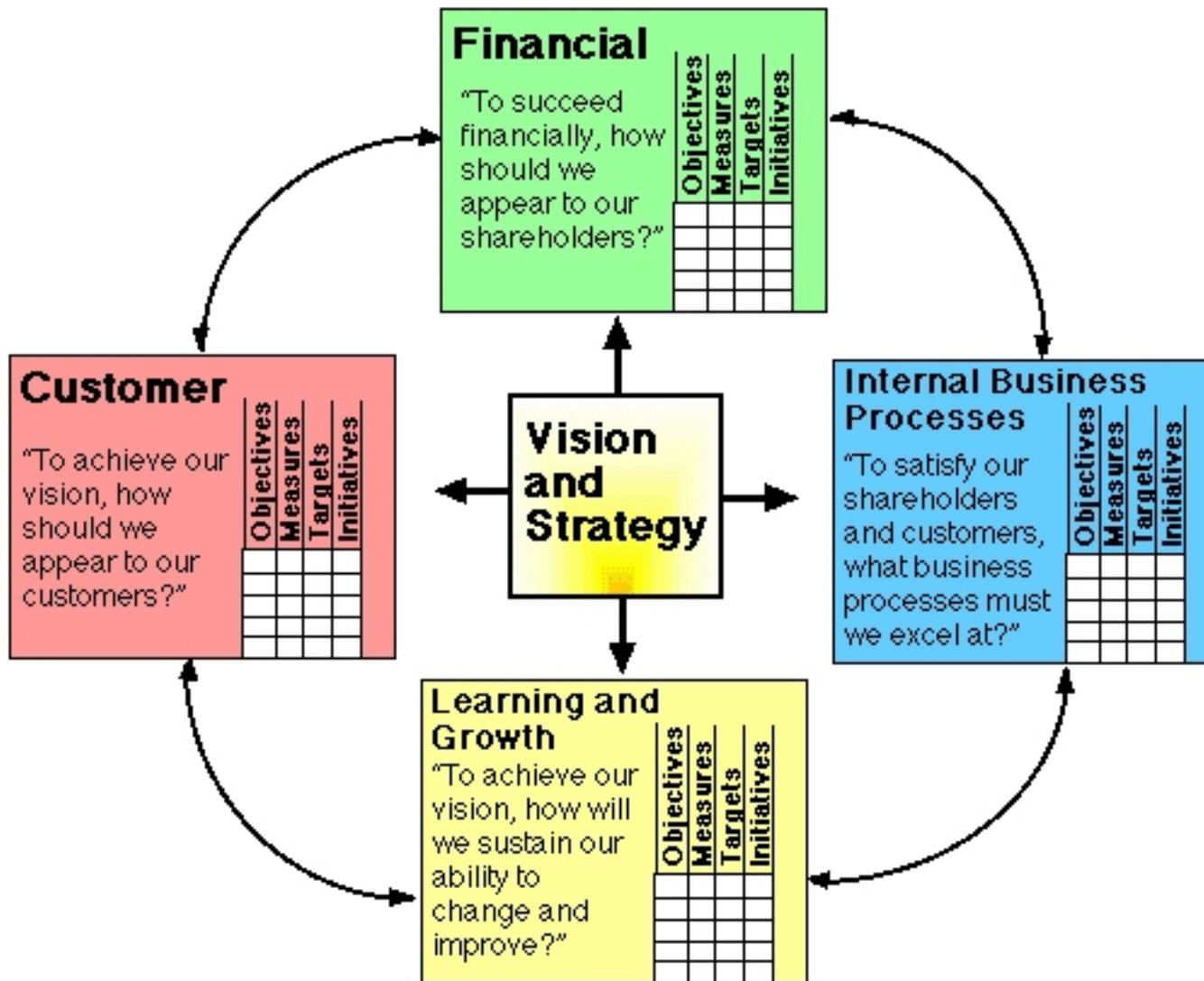
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Basics: SWOT Analyzis



Source: <http://www.bizstrategies.biz/images/SWOT-Analysis-sm.jpg>

Basics: Kaplan/Norten´s Balanced Score Card (BSC) for Strategic Management

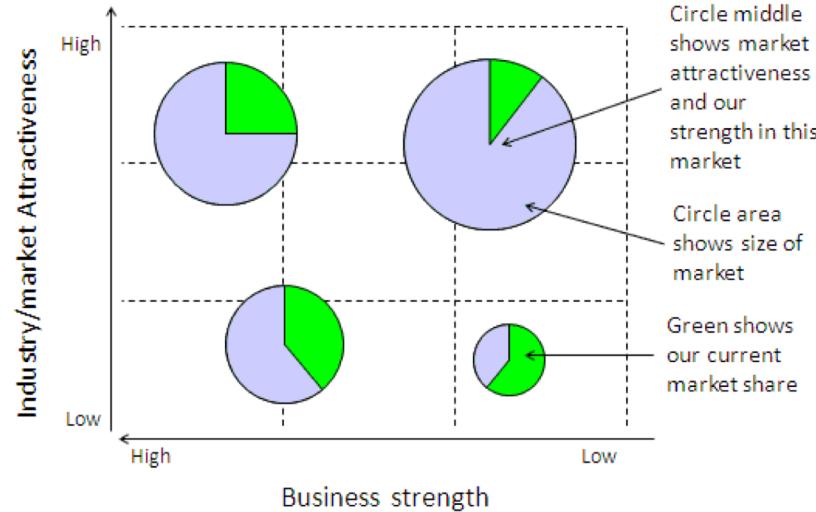
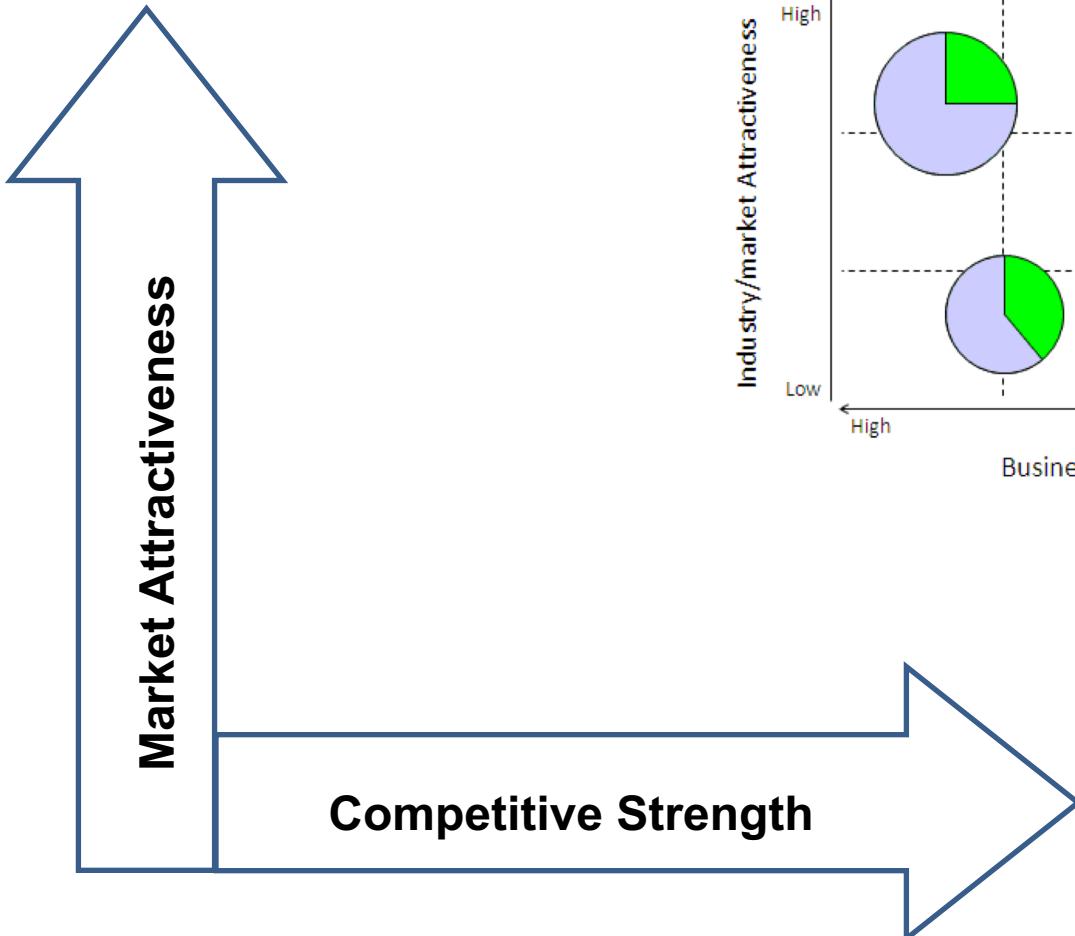


Model 1: Two Dimensions of Strategic Management (BCG)



Model 2: Two Dimensions of Strategic Management (McK)

Market Analysis (external)



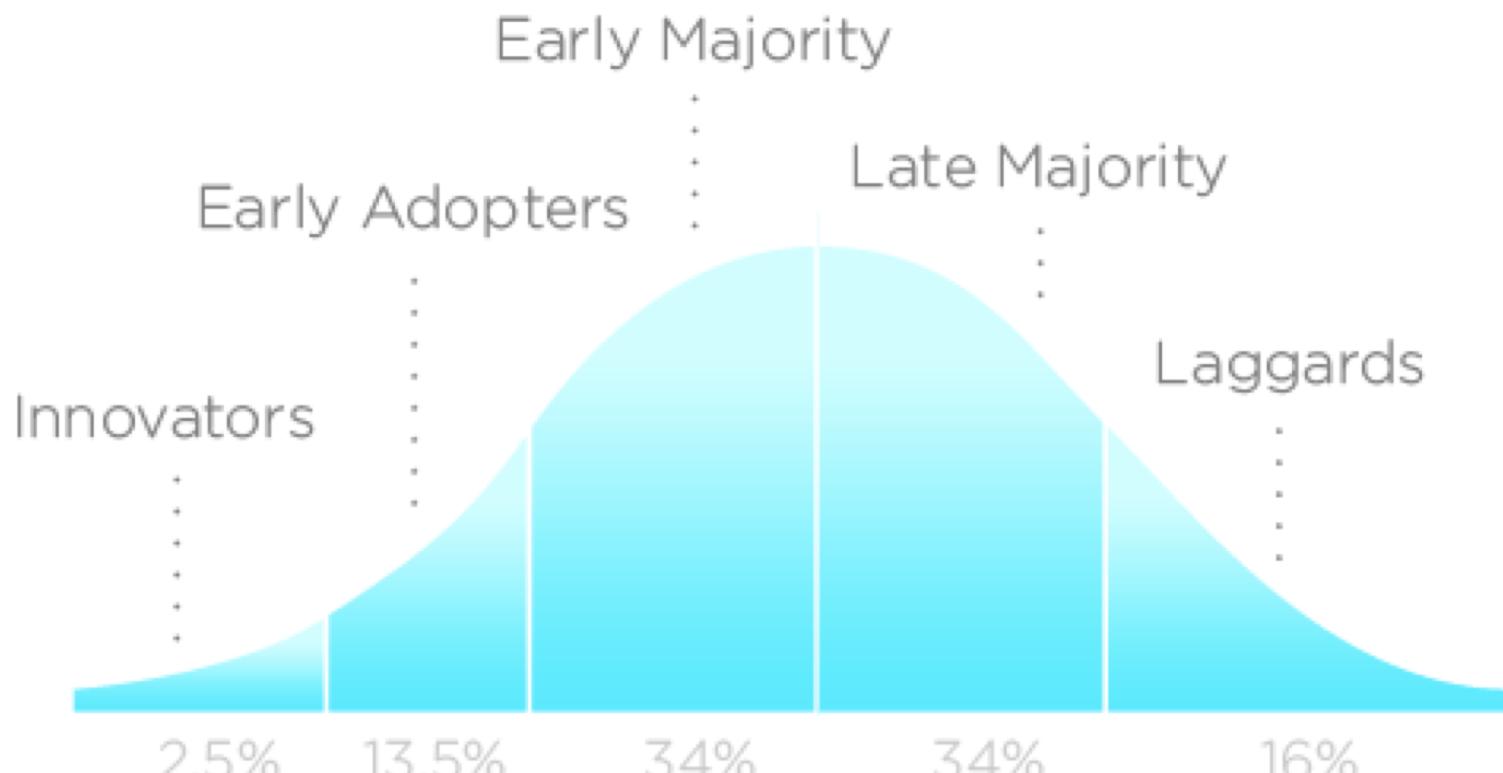
Company Strength Analysis
(internal)

Market Attractiveness for SBU

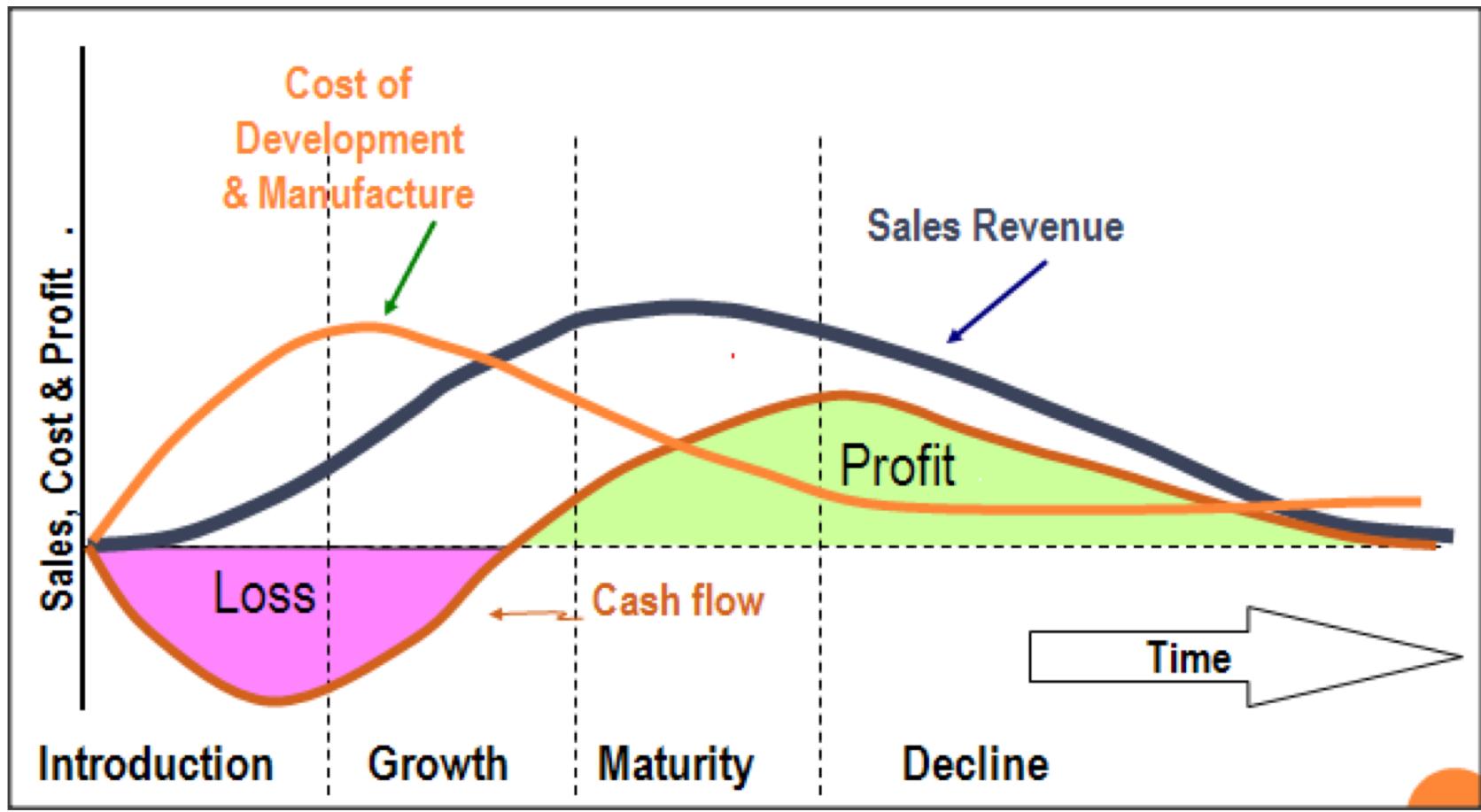
- Market Size
- Market growth
- Market profitability
- Pricing trends
- Competitive intensity / rivalry
- Overall risk of returns in the industry
- Opportunity to differentiate products and services
- Segmentation
- Distribution structure (e.g. retail, direct, wholesale)

Competitive Strength of SBU

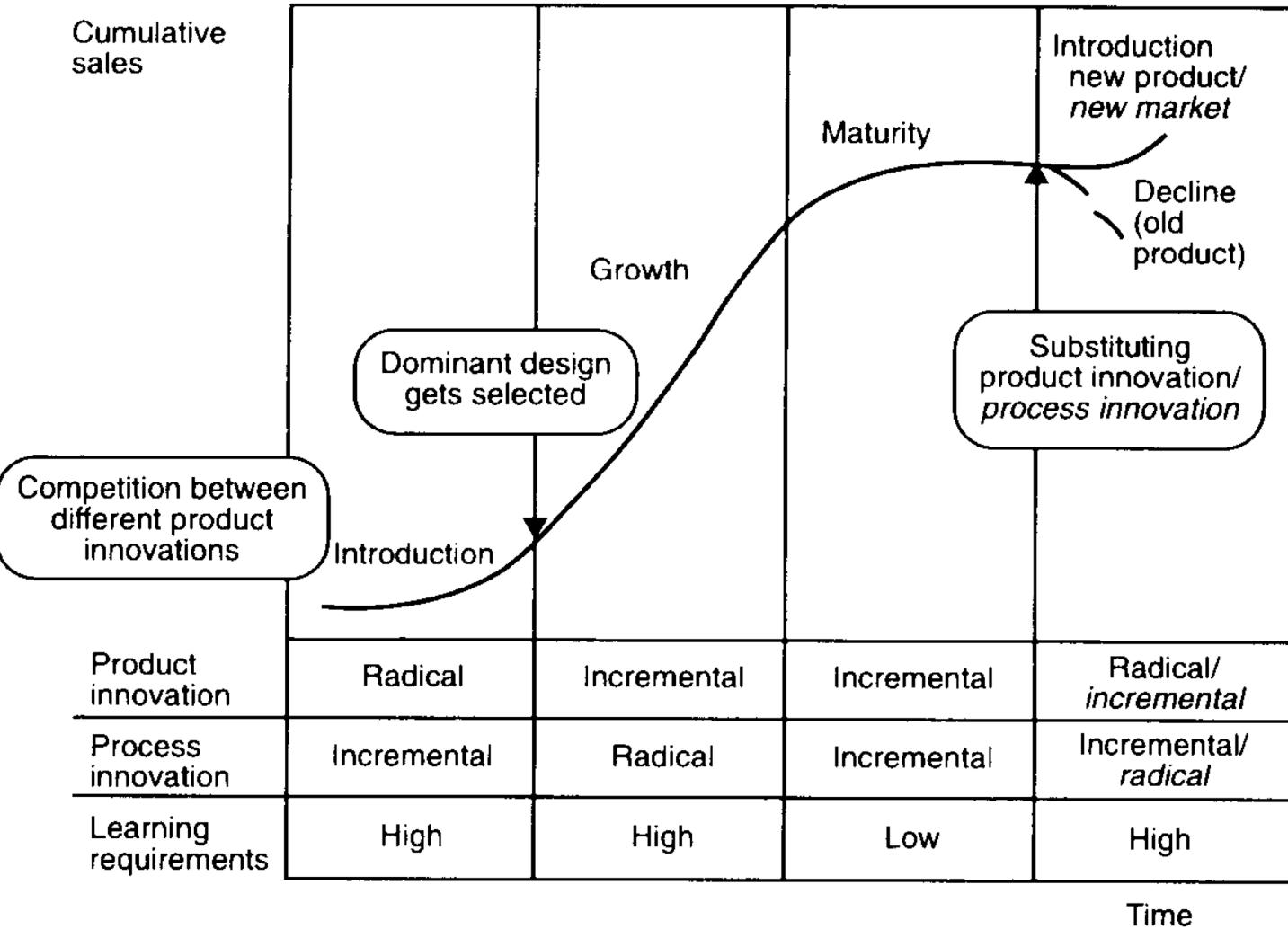
- Strength of assets and competencies
- Relative brand strength
- Market share
- Customer loyalty
- Relative cost position (cost structure compared with competitors)
- Distribution strength
- Record of technological or other innovation
- Access to financial and other investment resources



INNOVATION ADOPTION LIFECYCLE

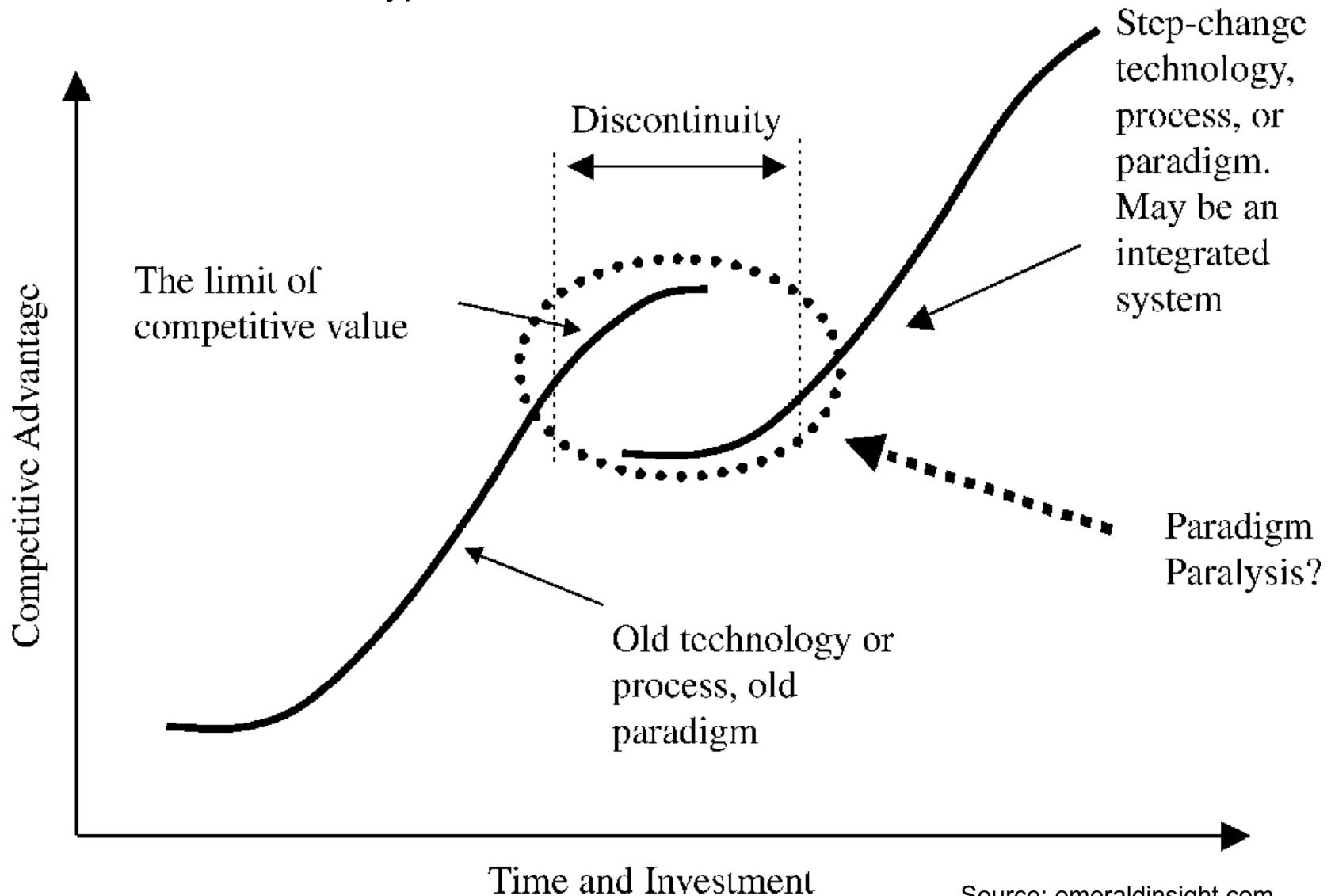


Source: <http://education.lokoi.com>



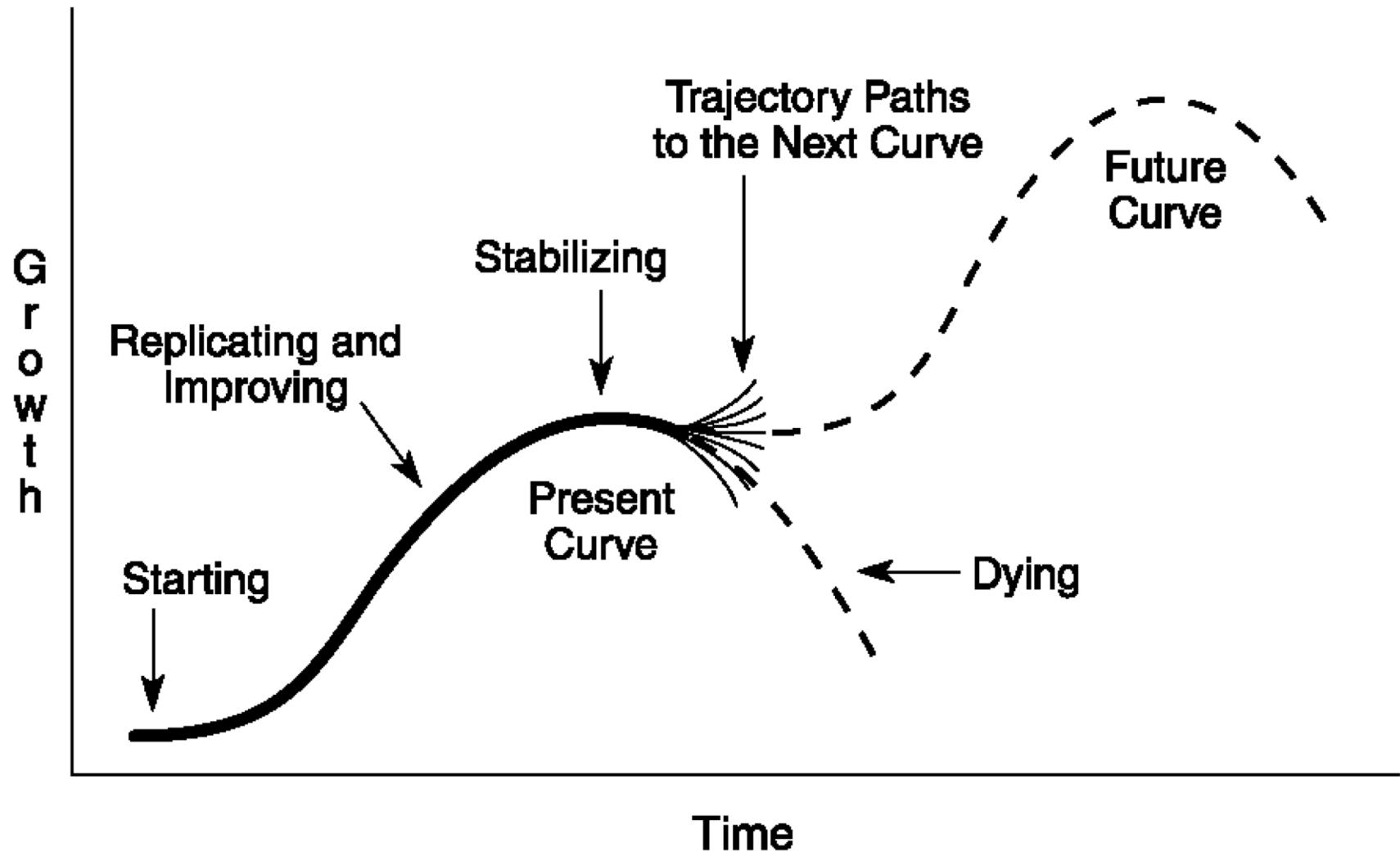
Source: Elaborated from [13]

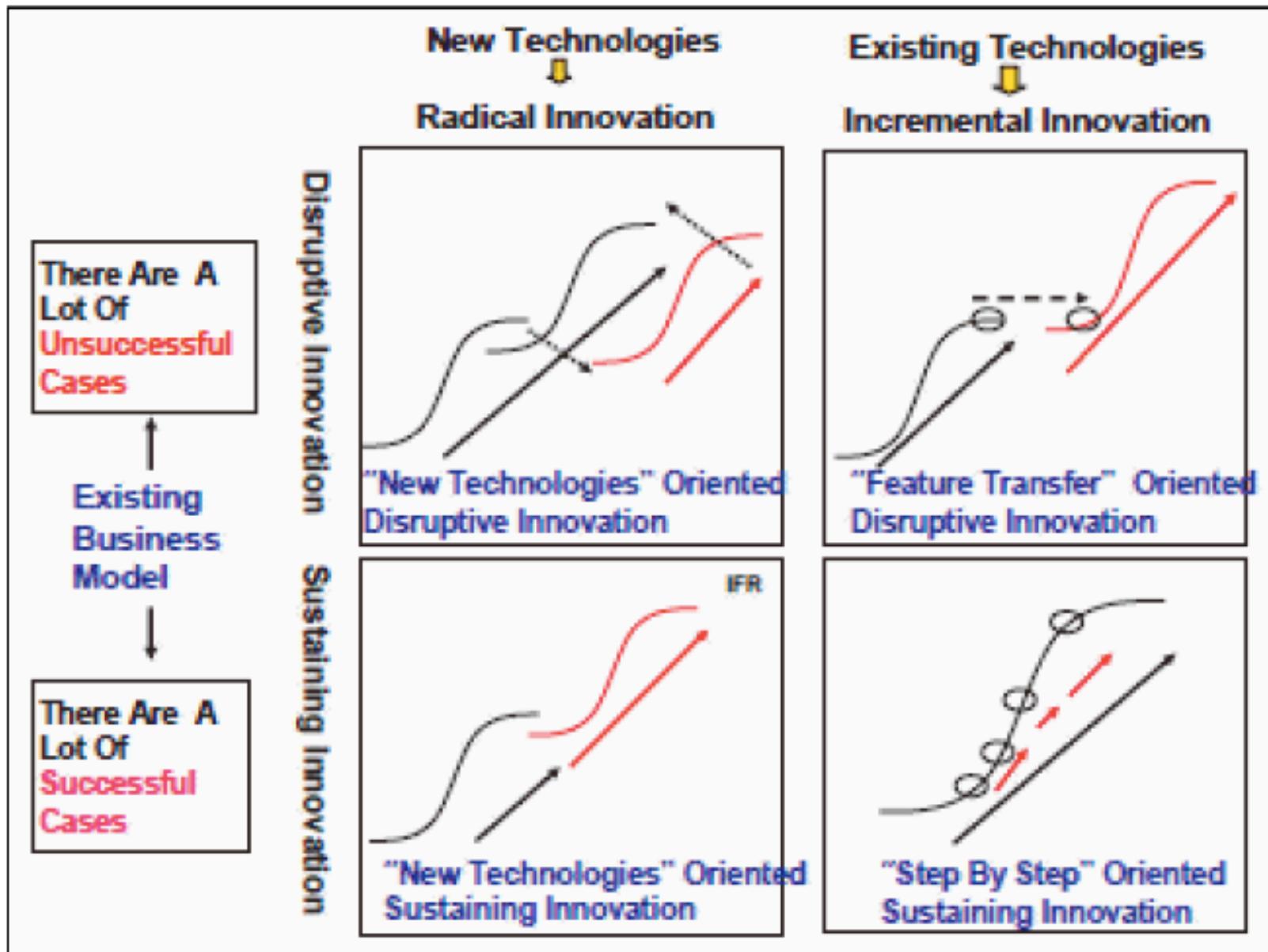
Product S-Curve Prototype



Source: emeraldinsight.com

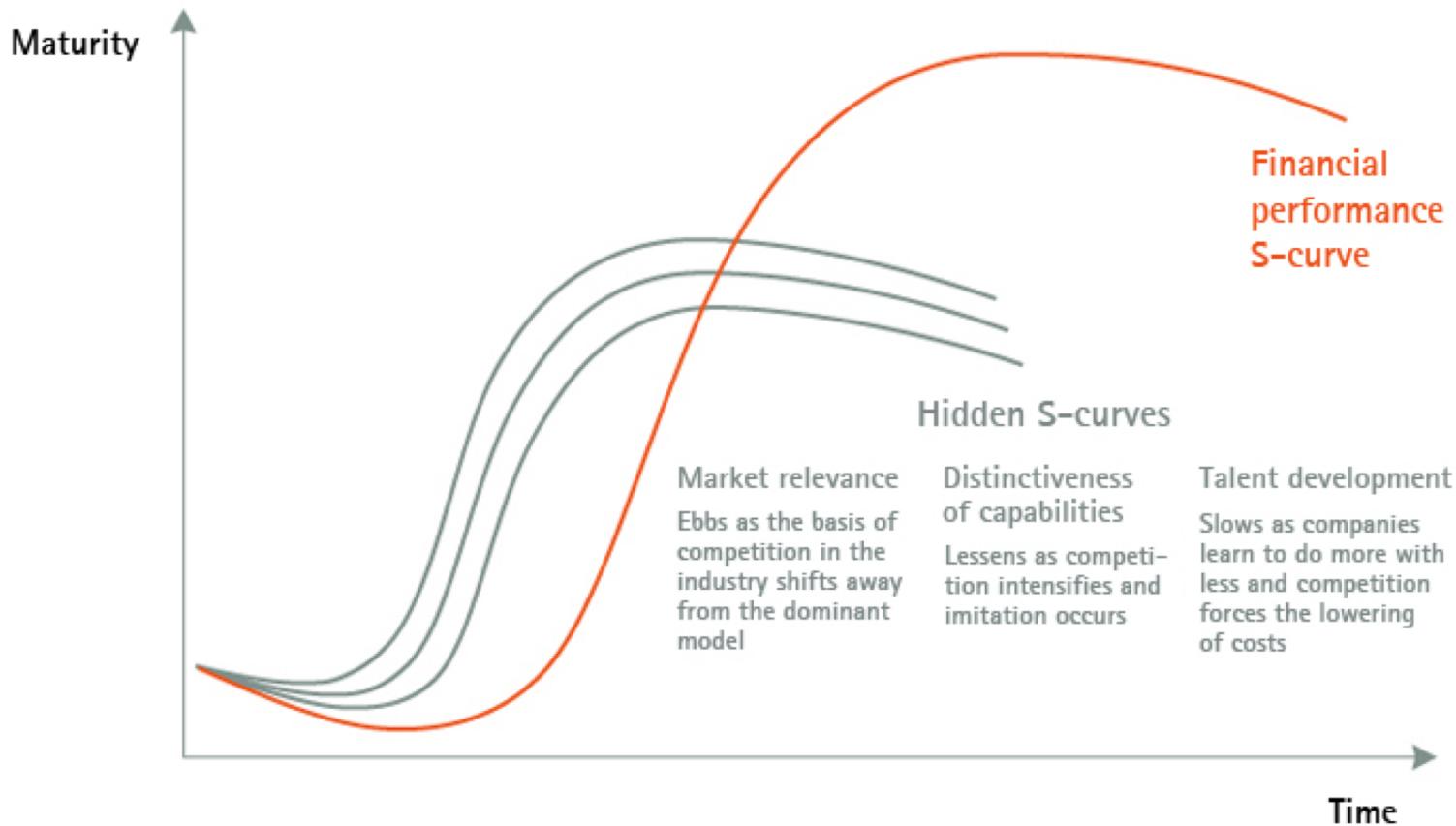
Product S-Curve Prototype





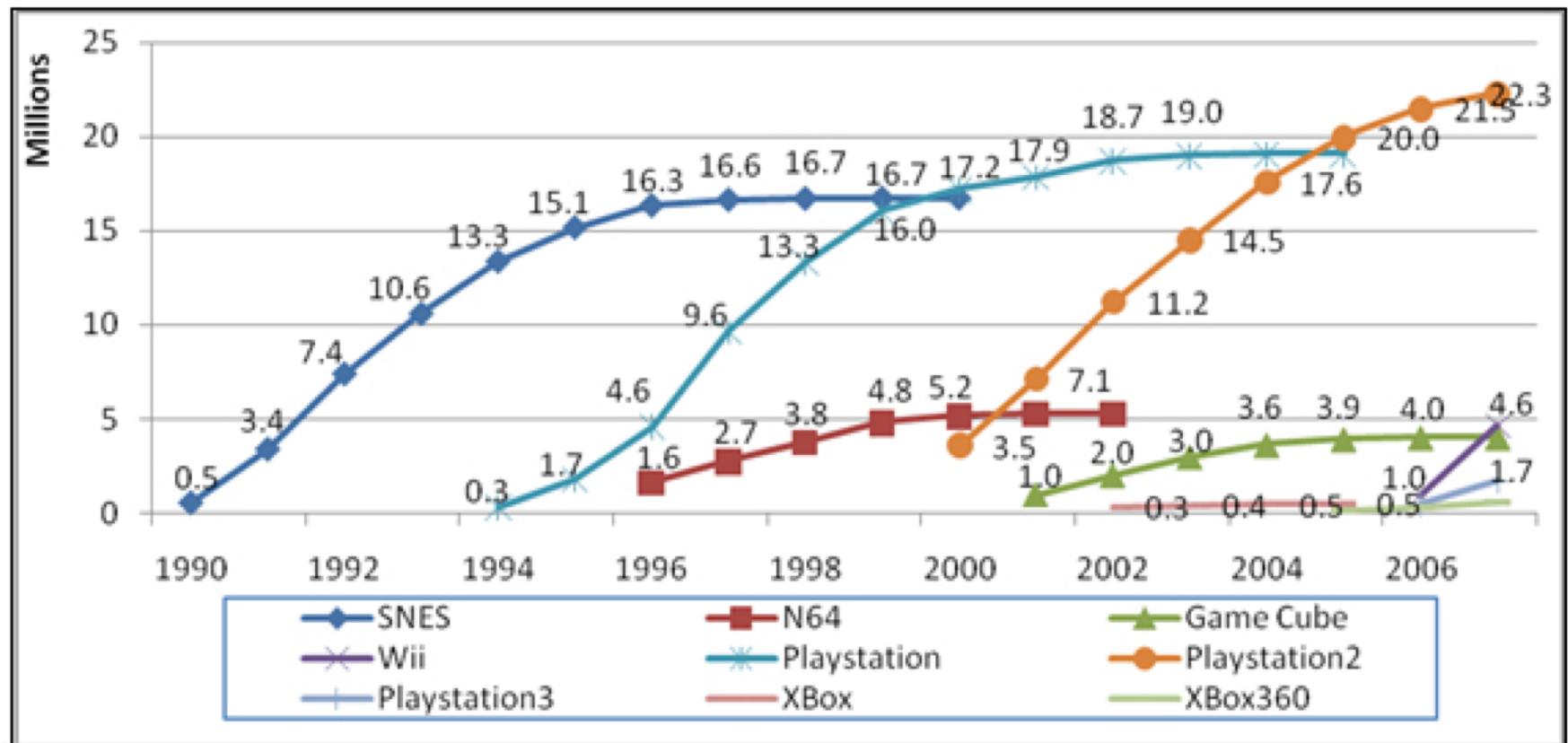
The hidden S-curves of high performance

Three key aspects of business mature and start to decline much faster than the financial performance of a company.



Source: CMO Council: Accenture analysis

Example: Accumulated sales per console (in millions)



Source: Based on Vgchartz (2008)

BCG Matrix (or BCG Product Portfolio Box)

Introduction

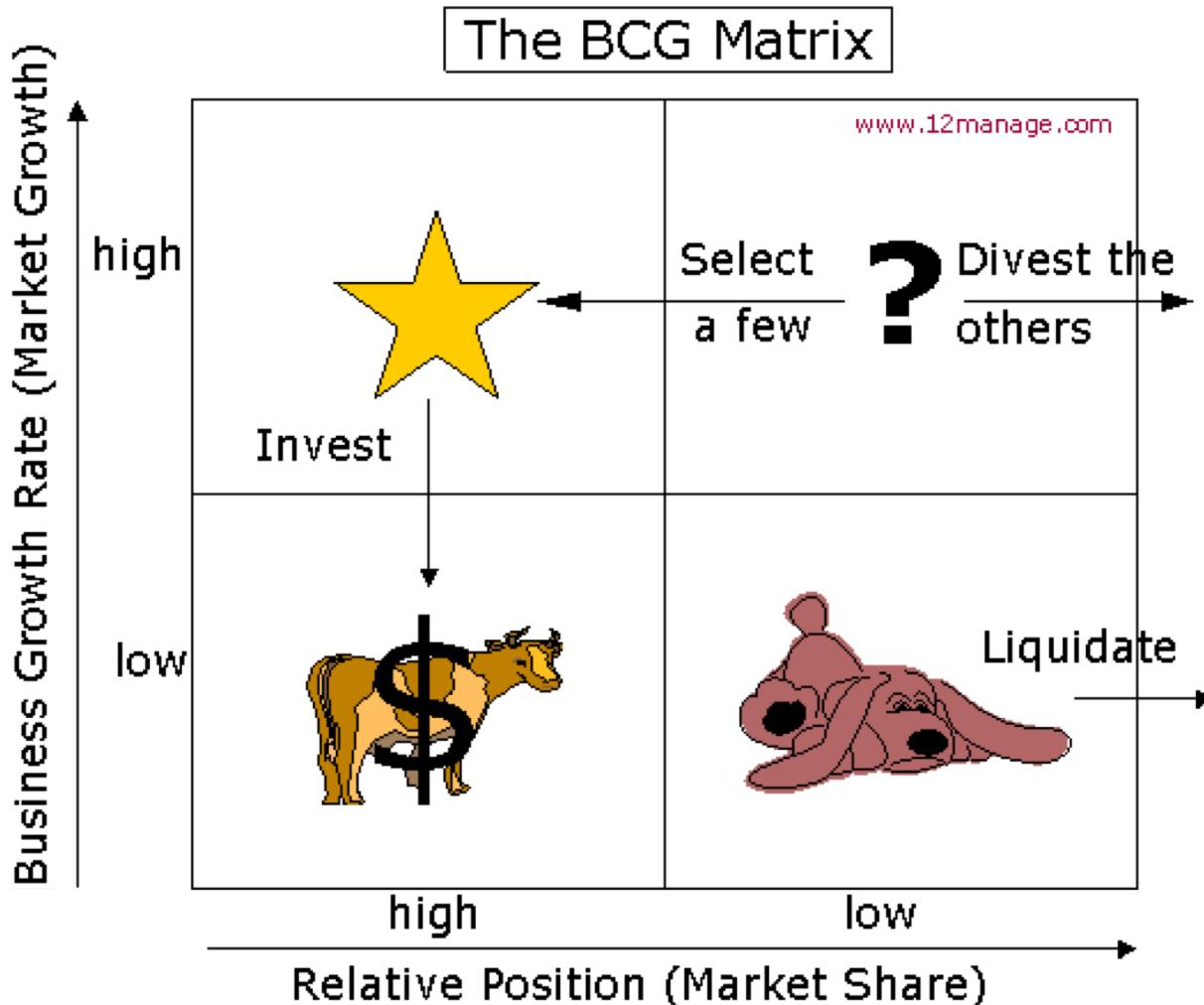
The **business portfolio** is the collection of businesses and products that make up the company. The best business portfolio is one that fits the company's strengths and helps exploit the most attractive opportunities.

The company must:

- (1) Analyse its current business portfolio and decide which businesses should receive more or less investment, and
- (2) Develop growth strategies for adding new products and businesses to the portfolio, whilst at the same time deciding when products and businesses should no longer be retained.

Source: http://www.tutor2u.net/business/strategy/bcg_box.htm

BCG Portfolio Box



Using the BCG Box (an example is illustrated above) a company classifies all its SBU's according to two dimensions:
On the horizontal axis: relative market share - this serves as a measure of SBU strength in the market
On the vertical axis: market growth rate - this provides a measure of market attractiveness

Types of SBU

Stars - Stars are high growth businesses or products competing in markets where they are relatively strong compared with the competition. Often they need heavy investment to sustain their growth. Eventually their growth will slow and, assuming they maintain their relative market share, will become cash cows.

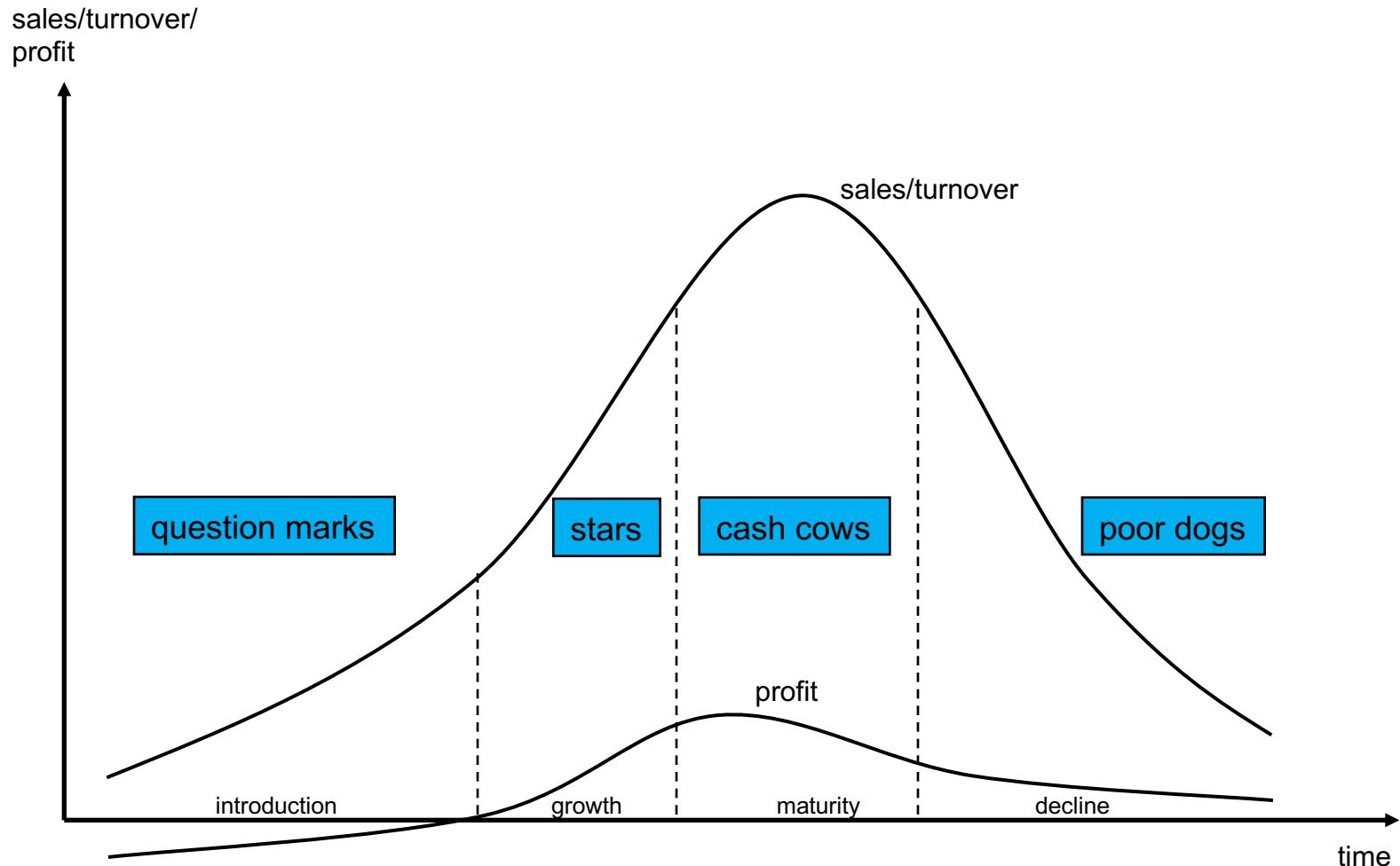
Cash Cows - Cash cows are low-growth businesses or products with a relatively high market share. These are mature, successful businesses with relatively little need for investment. They need to be managed for continued profit - so that they continue to generate the strong cash flows that the company needs for its Stars.

Question marks - Question marks are businesses or products with low market share but which operate in higher growth markets. This suggests that they have potential, but may require substantial investment in order to grow market share at the expense of more powerful competitors. Management have to think hard about "question marks" - which ones should they invest in? Which ones should they allow to fail or shrink?

Poor Dogs - Unsurprisingly, the term "dogs" refers to businesses or products that have low relative share in unattractive, low-growth markets. Dogs may generate enough cash to break-even, but they are rarely, if ever, worth investing in.

Source: http://www.tutor2u.net/business/strategy/bcg_box.htm

Life cycle of products



Introduction

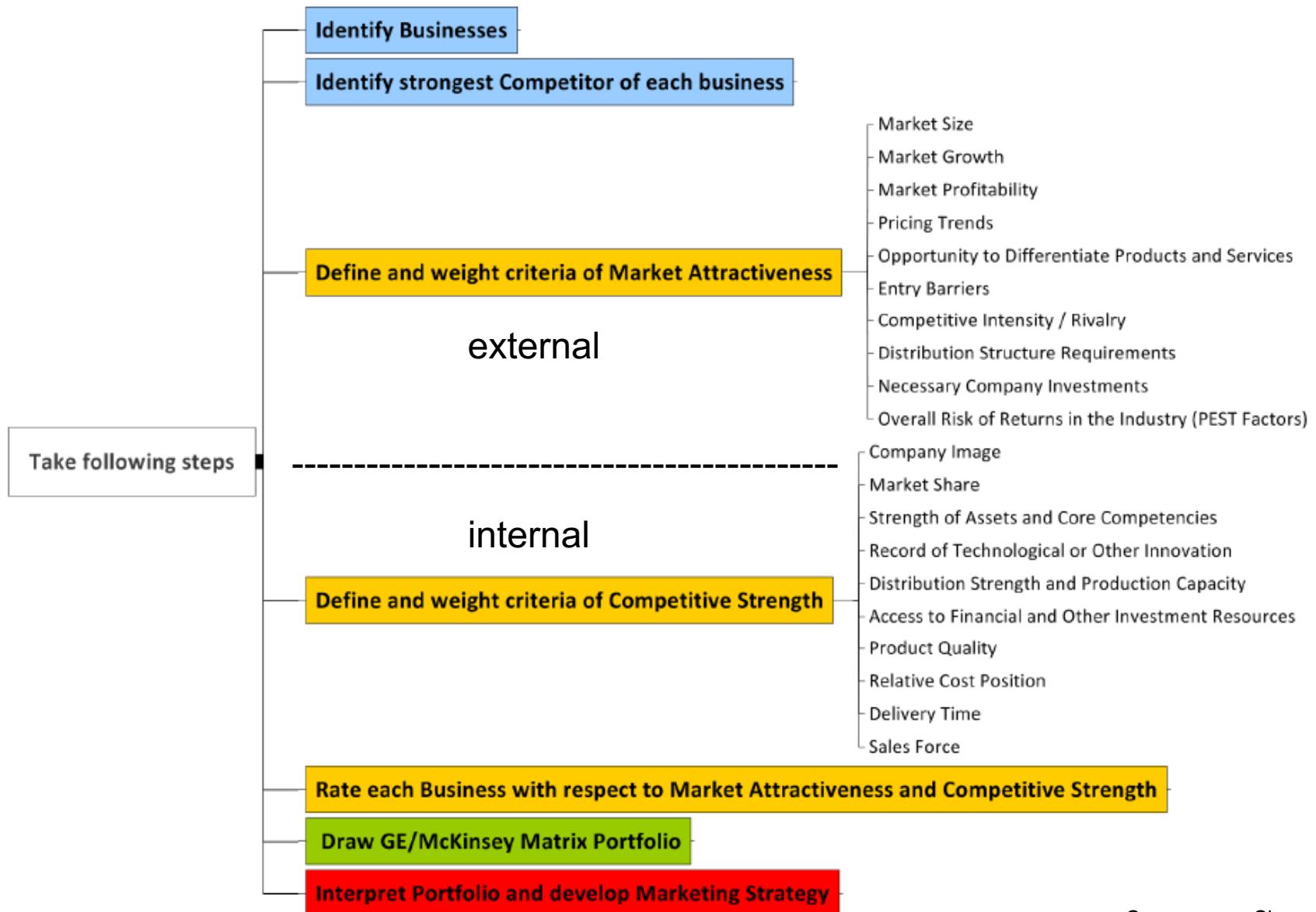
The aim of the GE/McKinsey matrix Portfolio Analysis

The aim of the GE/McKinsey Matrix Portfolio Analysis is to:

- Analyse the current business portfolio and decide which businesses should receive more or less investment
- Develop growth strategies for adding new products and businesses to the portfolio
- Decide which businesses or products should no longer be retained.

Source: www.Siemann.eu

Procedure to get the GE/McKinsey Matrix Portfolio



Source: www.Siemann.eu

Industry Attractiveness

The vertical axis of the GE / McKinsey matrix is industry attractiveness, which is determined by factors such as the following:

- Market growth rate
- Market size
- Demand variability
- Industry profitability
- Industry rivalry
- Global opportunities
- Macroenvironmental factors ([PEST](#))

Each factor is assigned a weighting that is appropriate for the industry. The industry attractiveness then is calculated as follows:

$$\begin{aligned}\text{Industry attractiveness} = & \text{ factor value}_1 \times \text{factor weighting}_1 \\ & + \text{ factor value}_2 \times \text{factor weighting}_2 \\ & \cdot \\ & \cdot \\ & \cdot \\ & + \text{ factor value}_N \times \text{factor weighting}_N\end{aligned}$$

PEST Analysis

A scan of the external macro-environment in which the firm operates can be expressed in terms of the following factors:

- Political
- Economic
- Social
- Technological

Business Unit Strength

The horizontal axis of the GE / McKinsey matrix is the strength of the business unit. Some factors that can be used to determine business unit strength include:

- Market share
- Growth in market share
- Brand equity
- Distribution channel access
- Production capacity
- Profit margins relative to competitors

The business unit strength index can be calculated by multiplying the estimated value of each factor by the factor's weighting, as done for industry attractiveness.

Typical (external) factors that affect Market Attractiveness:

- Market size
- Market growth rate
- Market profitability
- Pricing trends
- Competitive intensity / rivalry
- Overall risk of returns in the industry
- Entry barriers
- Opportunity to differentiate products and services
- Demand variability
- Segmentation
- Distribution structure
- Technology development

Typical (internal) factors that affect Competitive Strength of a Strategic Business Unit:

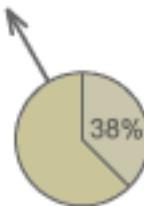
- Strength of assets and competencies
- Relative brand strength (marketing)
- Market share
- Market share growth
- Customer loyalty
- Relative cost position (cost structure compared with competitors)
- Relative profit margins (compared to competitors)
- Distribution strength and production capacity
- Record of technological or other innovation
- Quality
- Access to financial and other investment resources
- Management strength

Plotting the Information

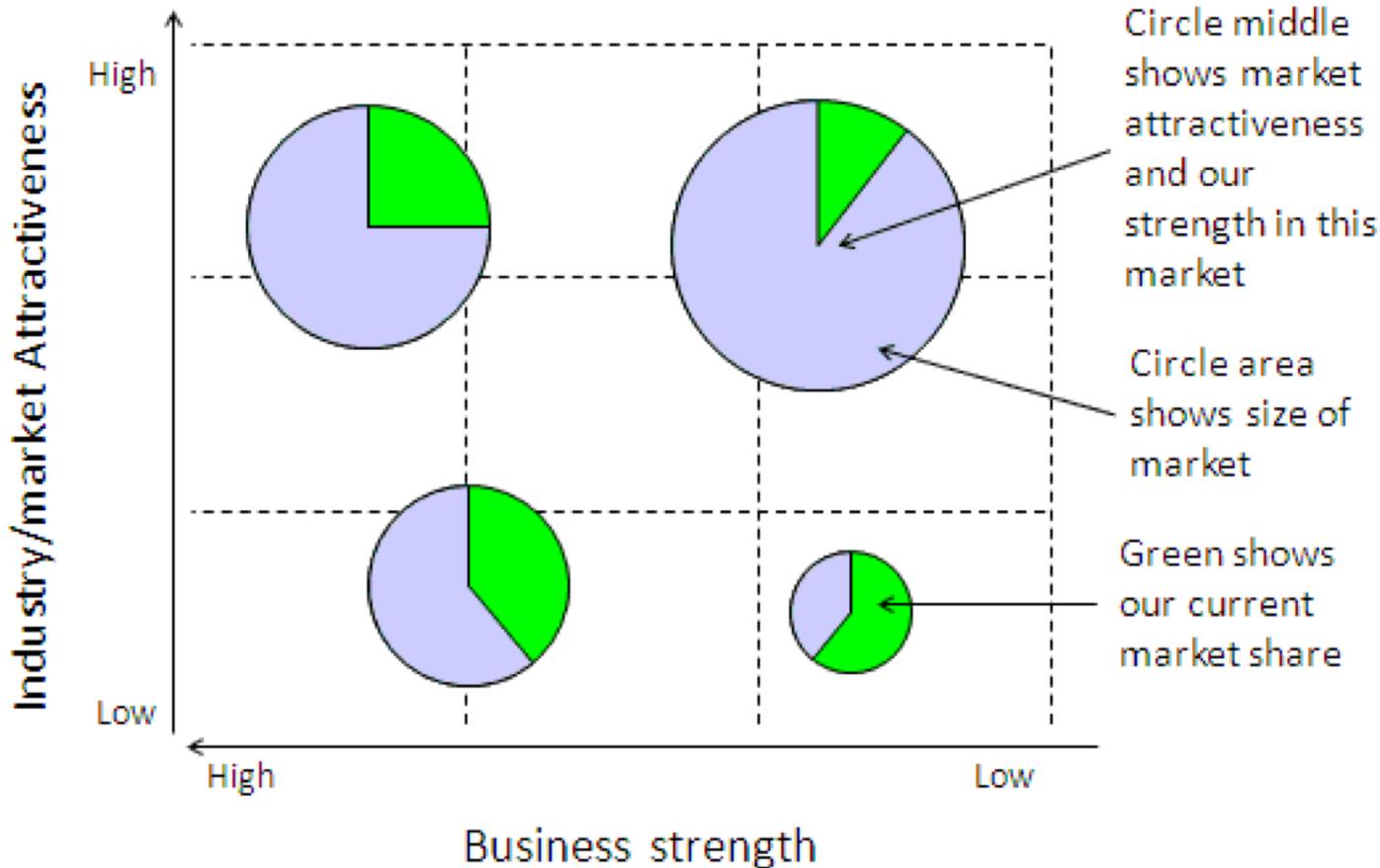
Each business unit can be portrayed as a circle plotted on the matrix, with the information conveyed as follows:

- Market size is represented by the size of the circle.
- Market share is shown by using the circle as a pie chart.
- The expected future position of the circle is portrayed by means of an arrow.

The following is an example of such a representation:



The shading of the above circle indicates a 38% market share for the strategic business unit. The arrow in the upward left direction indicates that the business unit is projected to gain strength relative to competitors, and that the business unit is in an industry that is projected to become more attractive. The tip of the arrow indicates the future position of the center point of the circle.



Strategic Implications

Resource allocation recommendations can be made to grow, hold, or harvest a strategic business unit based on its position on the matrix as follows:

- **Grow** strong business units in attractive industries, average business units in attractive industries, and strong business units in average industries.
- **Hold** average businesses in average industries, strong businesses in weak industries, and weak business in attractive industries.
- **Harvest** weak business units in unattractive industries, average business units in unattractive industries, and weak business units in average industries.

There are strategy variations within these three groups. For example, within the harvest group the firm would be inclined to quickly divest itself of a weak business in an unattractive industry, whereas it might perform a phased harvest of an average business unit in the same industry.

GE/McKinsey Matrix Portfolio Interpretation

Industry/Market Attractiveness	low	medium	high
low	Selectivity Specialise niche Seek acquisition	Selective Growth Identify weakness Build on strengths	Invest & Grow Seek dominance Maximise investment
medium	Harvest/Divest Specialise niche Consider exit	Selectivity Specialise Invest selectively	Selective Growth Identify growth area Invest in growth
high	Harvest/Divest Attack rivals Time exit	Harvest/Divest Prue lines Minimise investments	Selectivity Maintain position Seek cash position

Source: www.Siemann.eu

While the GE business screen represents an improvement over the more simple BCG growth-share matrix, it still presents a somewhat limited view by not considering interactions among the business units and by neglecting to address the [core competencies](#) leading to value creation. Rather than serving as the primary tool for resource allocation, portfolio matrices are better suited to displaying a quick synopsis of the strategic business units.