



IIT ROORKEE



NPTEL ONLINE
CERTIFICATION COURSE

Project Management for Managers

Lec – 08

Methods of Project Selection - I

Dr. M.K. Barua

Department of Management

Indian Institute of Technology Roorkee



Model for project selection: Methods for selection run on continuum, from highly **qualitative or judgmental** to **quantitative**. The screening models should have:



Model for project selection: Methods for selection run on continuum, from highly qualitative or **judgmental** to **quantitative**. The screening models should have:

1. **Realism:** organization's objectives, constraints on money and resources.
2. **Capability:** flexible enough to respond to changes in conditions under which projects are carried out. Comparison of projects should be there (time, technology, commercial aspects).



3. **Flexibility:** model should allow tax rate and tax laws, building codes.
4. **Ease of use:** simple enough, help people involved in project roles and functional roles
5. **Cost:** model should be cost effective
6. **Comparability:** broad enough to be applied to multiple projects



Methods of project selection/evaluation

- Sacred cow: Senior and powerful people
- Operating necessity: Shortage of power - power generation unit, effluent disposal issue – effluent treatment plant
- BCG
- CE/McKINSEY
- SPACE diagram



Methods of project selection/evaluation

Boston Consulting Group (BCG) Matrix: is a four celled matrix (2×2 matrix) developed by BCG, USA.

It is the most renowned corporate **portfolio analysis tool**.

It provides a graphic representation for an organization to **examine different businesses in it's portfolio** on the basis of their **related market share and industry growth rates**.



It is a two dimensional analysis on management of SBU's (Strategic Business Units). In other words, it is a comparative analysis of **business potential and the evaluation of environment**.

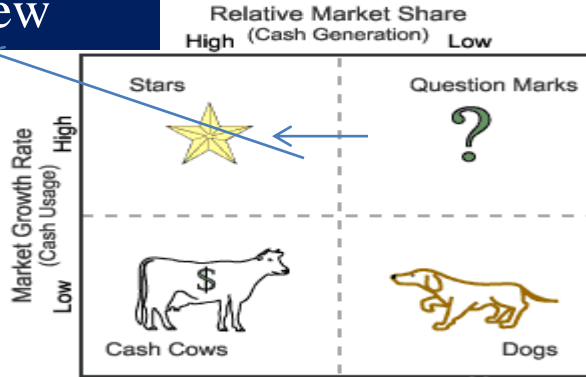
According to this matrix, business could be **classified as high or low** according to their industry growth rate and relative market share.

Market Share???(Reltv)? = SBU Sales this year / leading competitors sales this year.

Market Growth Rate = Industry sales this year/ Industry Sales last year.



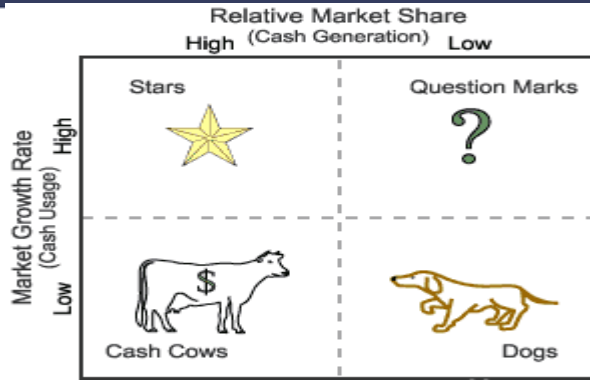
Select few



Stars- Stars represent business units having **large market share** in a **fast growing** industry. They may generate cash but because of fast growing market, stars **require huge investments to maintain their leads**. Net cash flow is usually modest.

SBU's located in this cell are attractive as they are located in a robust industry and these business units are highly competitive in the industry. **If successful, a star will become a cash cow when the industry matures.**

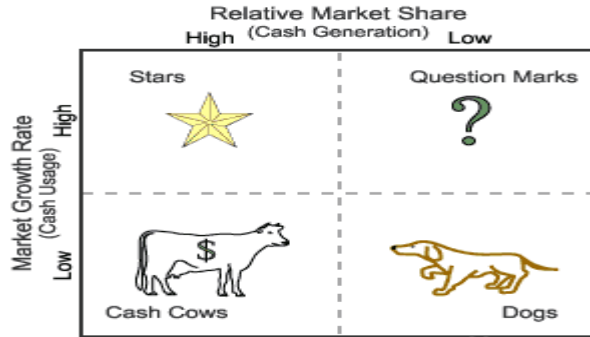




Cash Cows- Cash Cows represent business units having a **large market share in a mature, slow growing industry**.

Cash cows **require little investment** and generate cash that can be utilized for **investment in other business units**. These SBU's/products are the corporation's key source of cash, and are specifically the core business.

They are the base of an organization. **These businesses usually follow stability strategies**. When **cash cows lose their appeal** and move towards deterioration, then a **retrenchment** policy may be pursued.



Divest
others

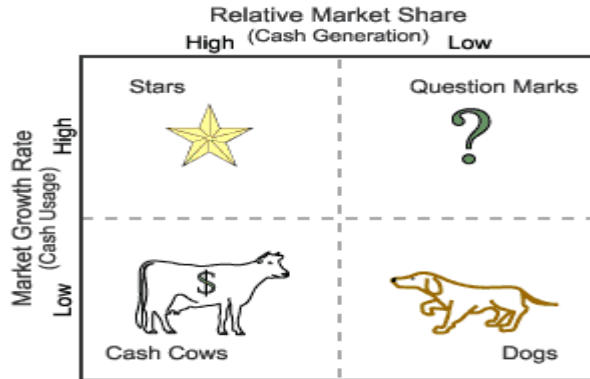
Question Marks- They require huge amount of cash to maintain or gain market share. They require attention to determine if the venture can be viable.

If the firm thinks it has **dominant market share**, then it can adopt expansion strategy, else retrenchment strategy can be adopted.

Most **businesses start as question marks** as the company tries to enter a high growth market in which there is already a market-share.

If ignored, then question marks may become dogs, while if huge investment is made, then they have potential of becoming stars.





Liquidate

Dogs- Dogs represent businesses having weak market shares in low-growth markets.

They neither generate cash nor require huge amount of cash. Due to low market share, these business units face **cost disadvantages**. Generally **retrenchment strategies are adopted** because these firms can gain market share only at the expense of competitor's/rival firms.

These business firms have **weak market share because of high costs, poor quality, ineffective marketing, etc.** Unless a dog has some other strategic aim, it should be liquidated if there is fewer prospects for it to gain market share. **Number of dogs should be avoided and minimized in an organization.**



As a particular industry matures and its growth slows, all business units become either *cash cows* or *dogs*.

The natural cycle for most business units is that they start as *question marks*, then turn into *stars*.

Eventually the market stops growing thus the business unit becomes a *cash cow*.

At the end of the cycle the cash cow turns into a *dog*.

BCG looks at only growth–share, ignores other elements.



HIGH

Cash Usage

LOW

RELATIVE MARKET SHARE

HIGH

Cash Generation

LOW

STARS

Earnings: *low, stable, growing*Cash flow: *neutral*Strategy: *invest for growth*

QUESTION MARKS

Earnings: *low, unstable, growing*Cash flow: *negative*Strategy: *invest, if has potential,
otherwise sell*

CASH COWS

Earnings: *high & stable*Cash flow: *high & stable*Strategy: *invest to maintain
current level or harvest*

DOGS

Earnings: *low, unstable*Cash flow: *neutral or negative*Strategy: *divest*

Relative market share



**MARKET
GROWTH**

High

Star

- Agri Business
- Hotels
- Paperboards & Packaging



Question mark

- FMCG-Foods
- ITC Infotech



Low

Cash Cow

- FMCG-Cigarettes



Dog

- Branded Apparels
- Packaged foods



High

Low

MARKET SHARE

McKINSEY/GE Matrix:

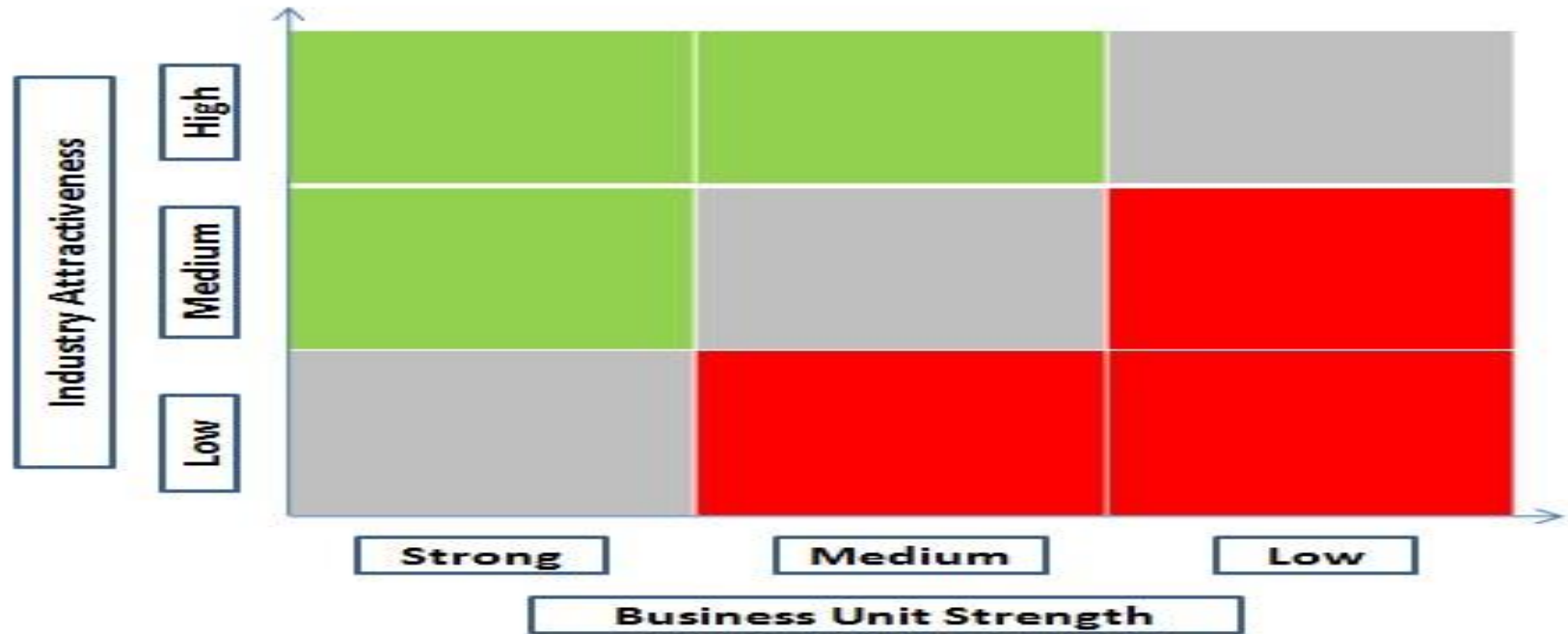
GE / McKinsey Matrix is an extension of the BCG Matrix. This tool compares different businesses on "**Business Strength**" and "**Industry/ Market Attractiveness**".

This Matrix is divided **into nine cells** - nine alternatives for positioning of any SBU or product offering. **Based on the strength of the business and its market attractiveness** each SBU will have a different position in the matrix.



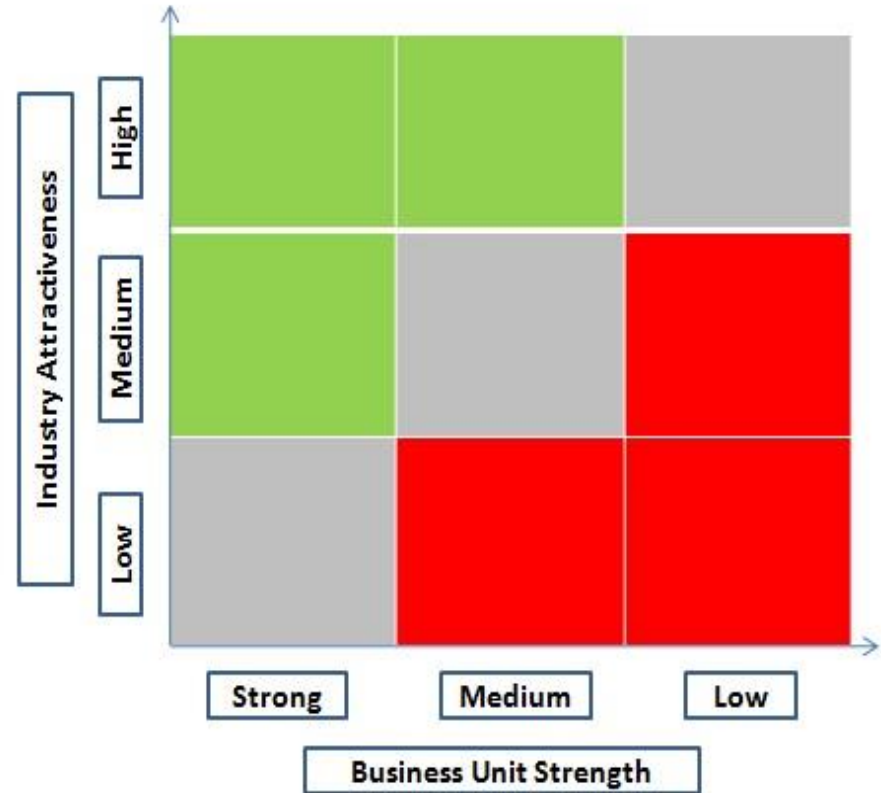
Industry Attractiveness??????

Business Unit Strength??????



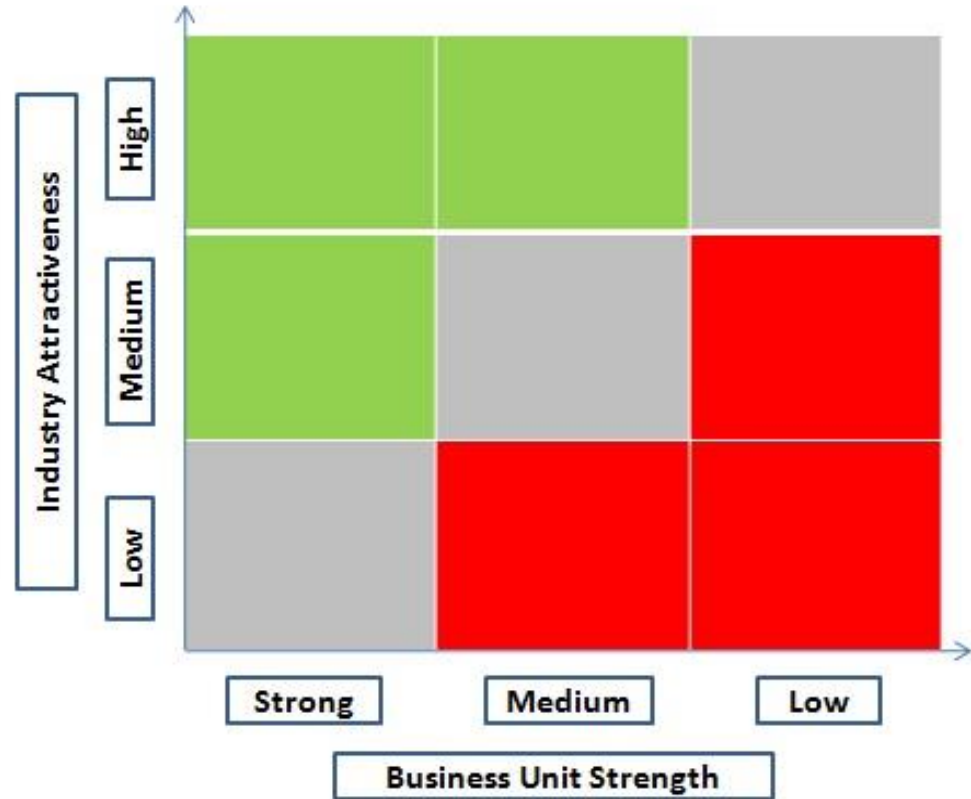
Industry Attractiveness

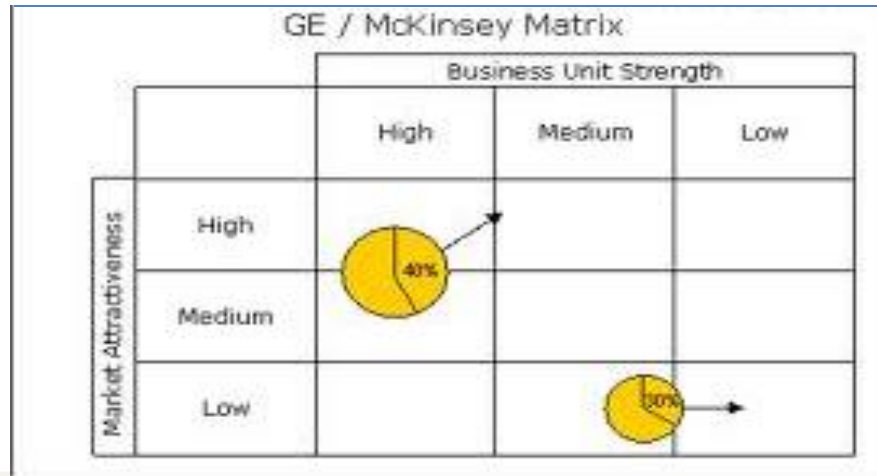
- Market size
- Market growth rate
- Govt support (????)
- Global opportunities
- Industry profitability
- Industry rivalry
- Demand variability
- Macroenvironmental factors



Business Unit Strength

- Market share
- Growth in market share
- Customer loyalty
- Brand equity
- Distribution channel access
- Production capacity
- Profit/cost margins relative to competitors
- Financial and channels' 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.



Segment I: This is the **best segment**. The business is strong and the market is attractive. The company should **allocate resources in this business and focus on growing the business and increase market share**. (Similar to which cell of BCG????)



Segment II: The **business** is either **strong** but the market is not attractive or the market is **strong** and the **business** is not strong enough to pursue potential opportunities. **Decision makers should make judgment on how to further deal with these SBUs.** Some of them may consume too much resources and are not promising while others may need additional resources and better strategy for growth. (Similar to which cell of BCG???)



Segment III: This is the **worst segment**. Businesses in this segment are **weak** and their market is **not attractive**. Decision makers should consider either **repositioning** these SBUs into a different market segment, develop **better cost-effective offering**, or **get rid of these SBUs** and invest the resources into more promising and attractive SBUs. (Similar to which cell of BCG???)

GE matrix

Industry attractiveness — Size, Market Growth, Pricing, Mkt. Diversity Competitive Structure, Industry Profitability				
Business strength - Size - Growth - Share - Position - Profitability - Margins - Tech. Position - Image - People		High	Medium	Low
	High	Investment and growth (G) SWIFT	Investment and growth (G) ALTO	Selectivity/ Earnings A STAR
	Medium	Investment and growth (G) SWIFT DEZIRE	Selectivity/ Earnings SX4	Harvest BALENO
	Low	Selectivity/ Earnings WAGON R	Harvest VERSA	Harvest OMNI

Prepare GE Matrix of ITC ?????

