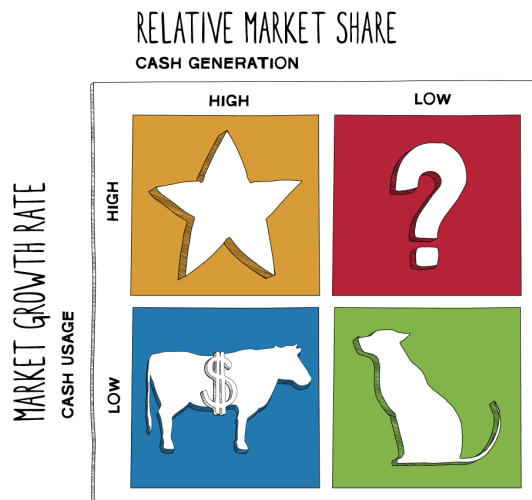


## BCG Matrix

a marketing planning tool that helps managers plan for a balanced product portfolio



### *Stars (high and high)*

generates high amounts of cash

hoped that stars will eventually turn into cash cows

### *Dogs (low and low)*

the market is stagnant or declining

businesses can use extension strategies to dispose of the dog

too many dogs may lead to liquidity problems

### *Cash Cows (low and high)*

high market share in a low-growth market

mature market and well-established products

### *Question Marks*

inferior marketing or product quality

known as wild cards as unclear if the businesses should invest more

## Descriptive Statistics

Mean Median Mode

Bar Charts

Pie Charts

Infographics

Quartiles

Standard Deviation

Evaluation of Descriptive Statistics

## Simple Linear Regression

*scatter plot with a best-fit line*

can be positive, negative, or not have a correlation

*trend line* underlying patterns of growth or decline that are forecasted

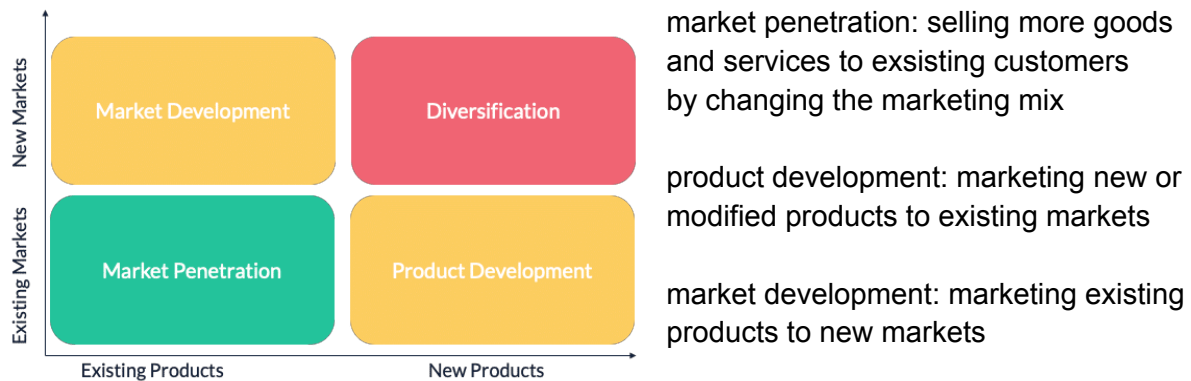
Moving Average Calculations:

eg. Three-Year MA: add the past, current, and future values and average them out.

this makes large fluctuations less extreme and makes the line more accurate to use

## Ansoff's Matrix

a planning tool to understand growth potential, set objectives, and consider risk



diversification: selling new products to new markets

**business plan** a written document outlining the goals of a business and how the business plans to achieve this

it states:

the aims, objectives, mission, and values of the business

action plan

financial documents

market research

the marketing mix and strategies

production of the good or service

## Decision Tree

a quantitative decision-making tool to calculate the value of a decision numerically

constructed from left to right

calculations made from right to left

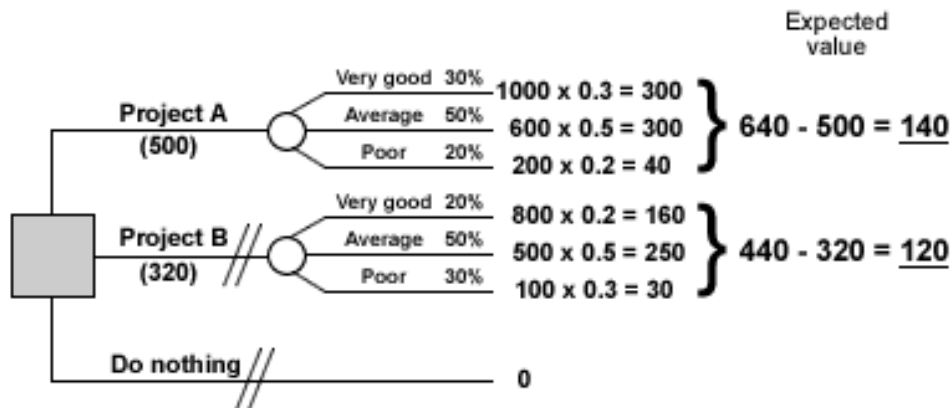
squares: decision points

lines coming out of squares to represent options

circles: chance or probability nodes

lines coming out of circles represent various outcomes

two parallel lines show rejected options



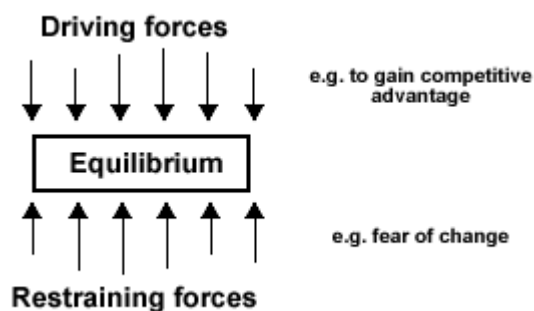
#### benefits

- reveals alternative courses of action
- objective and logical decision making
- visual
- reliable
- risks considered

#### drawbacks

- not all factors can be given numerical values
- probabilities are estimates
- qualitative factors ignored

### Force Field Analysis



a framework to look at forces influence a situation (driving – promotes change – or restraining – hinders change –)  
 quantitative tool based on qualitative data

the strength of the force:  
 length of the arrow  
 weight attached to the arrow

examined by totaling the weights for each force

#### benefits

- careful decision making
- work out the chance of success of the change
- analyse the worth of the change

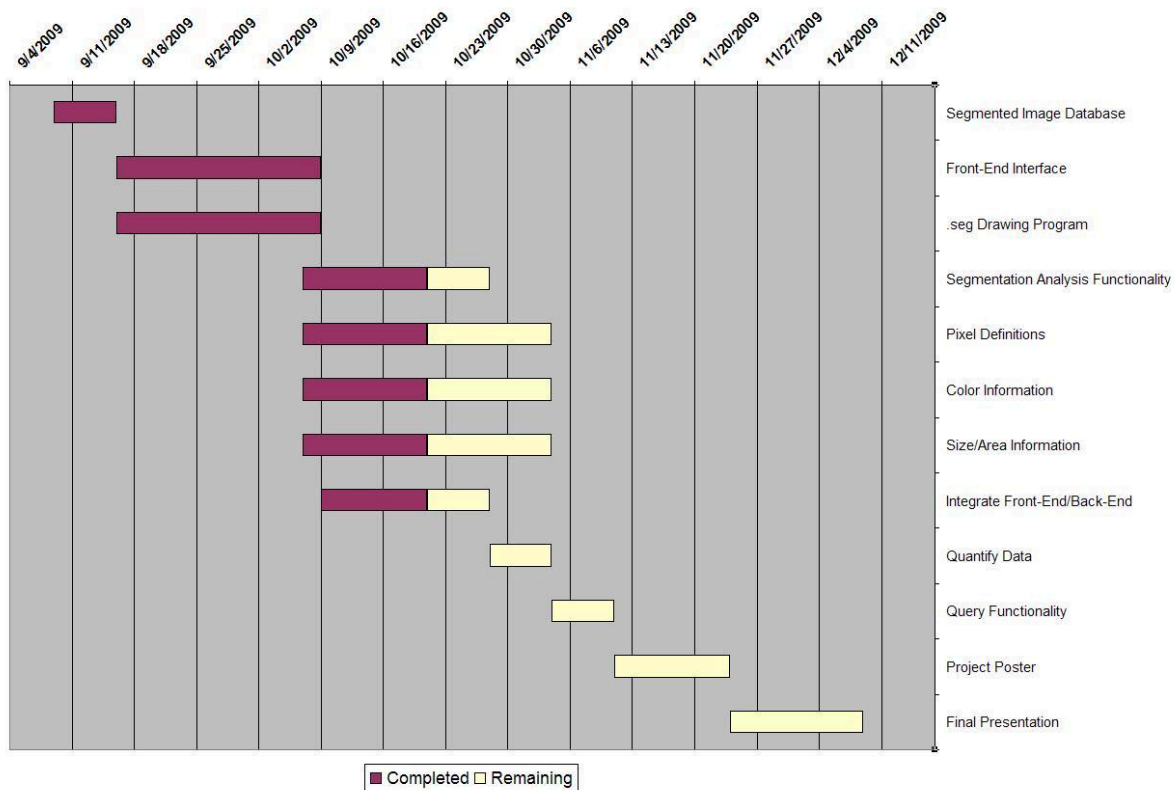
#### drawbacks

- weights can be added subjectively
- not all relevant forces may be considered
- does not solve the problems of change management

## Gantt Chart

visual tool that represents a project's schedule to enable managers to schedule and complete projects on time

tasks on one side  
start date and end date  
percentage completed



### benefits

- visual
- flexible
- planning tool

### drawbacks

- based on estimates
- can be difficult to plan and follow in complicated projects

## Critical Path Analysis

visual tool to manage complex projects and identify a 'critical path' (activities for which no delays can happen to ensure the project is completed on time)

circle: node

top right corner: estimated start time

bottom right corner: latest finish time

left-hand semi-circle: node number

arrows: demonstrate the tasks and order

letter is assigned to each task

estimated completion time is shown below the arrow

### *earliest start time*

calculated by adding the previous EST to ECT

### *latest finish time*

worked out backward by subtracting the final LFT from ECT

### *critical path*

determined by the path that takes the longest time to complete  
marked with two lines

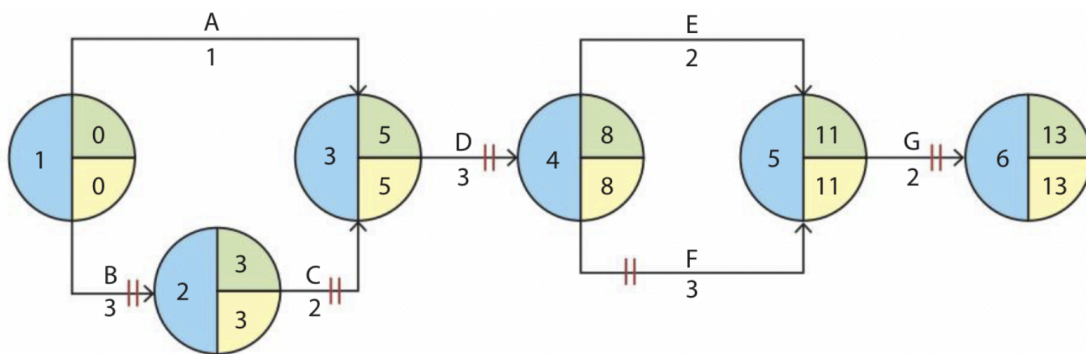
### *total float*

identification of spare time calculated by the tasks not part of the critical path  
subtract the EST previous node and duration from the LFT of the node

### *free float*

how much a task can be delayed by such that the subsequent activities EST will not be delayed

subtract the EST of the previous node and the duration from the EST of the node



### *benefits*

- visual
- encourages forward planning
- can improve efficiency
- cash flow can be controlled because purchases are made when they are required

### *drawbacks*

- does not guarantee success
- based on estimates and rely on a motivated and efficient workforce to ensure completion to the deadline
- complex project may be difficult to outline

## **SWOT Analysis**

an analytical planning tool separating internal and external factors  
strengths, weaknesses, opportunities, threats

## **STEEPLE Analysis**

an analytical framework that analyzes the external environment influencing a business

**S**ocial

**T**echnological

**E**conomic

**E**nvironmental

**P**olitical

**L**egal

**E**thical

*causes of changing external environment*

markets change

customers' wants and needs change

new competitors enter the markets

new technologies emerge