

# MA5840 Data Science and Strategic Decision Making for Business

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Cairns  
Singapore  
Townsville

**This week**

# Learning outcomes

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By the end of Week 4 you should be able to:

- Apply graphical and numerical tools for organising, analysing, interpreting, and presenting data in a balanced scorecard
- Apply analytical frameworks for organising, analysing, interpreting and presenting data to formulate strategy and inform strategic decisions
- Run scenario-based models and frameworks for planning, decision-making and control of business problems, interpret model results, and make recommendations to stakeholders.

## Assignment 2: Balanced Scorecard

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Write an engagement plan and draft a design for a balanced scorecard in an organisation that includes both financial and non-financial measures based on its vision and mission.

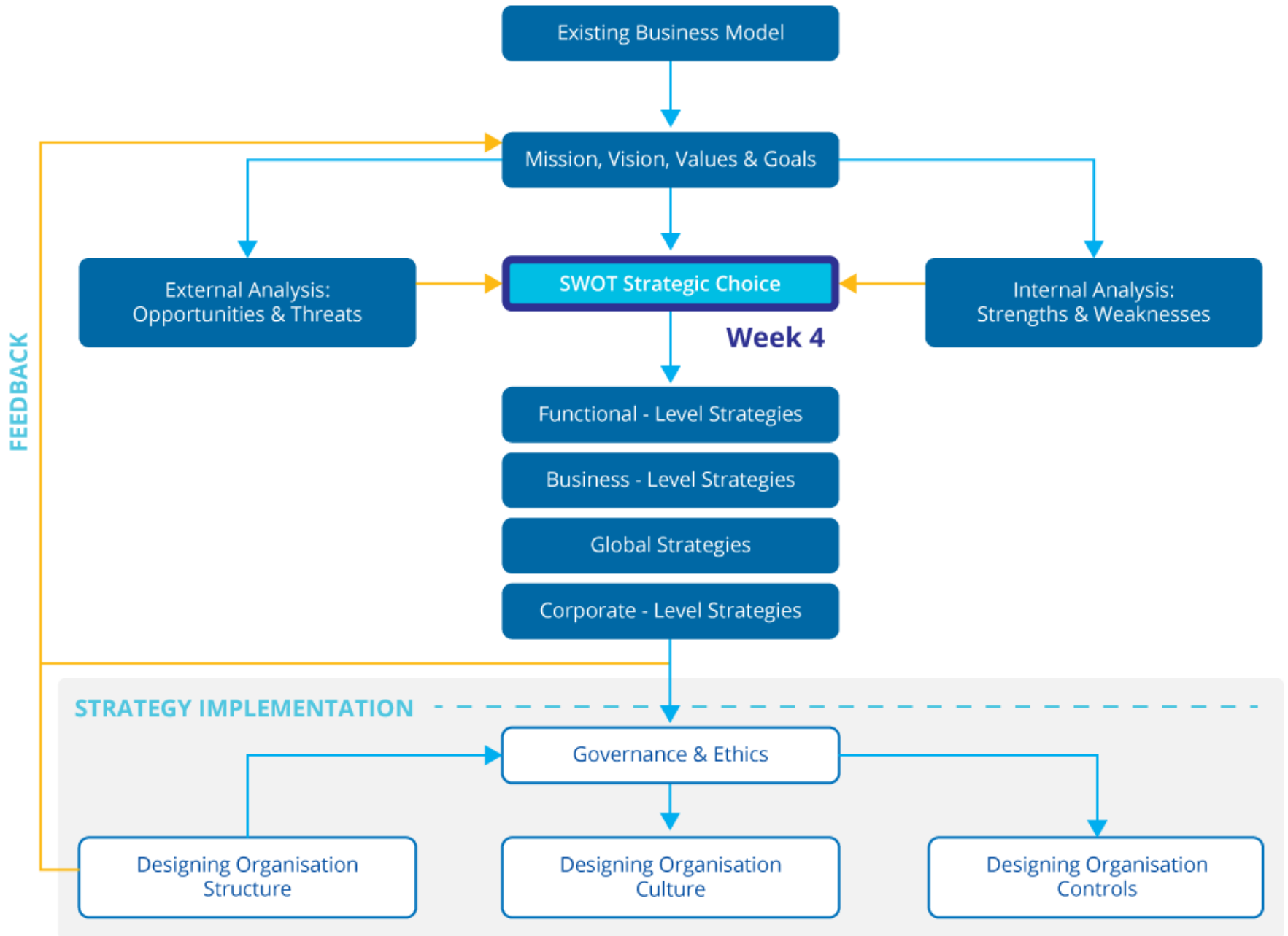
# **Week 4 – External Analysis**

# Week 4 Overview

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- Topic 1: Making strategic decisions
- Topic 2: Measuring strategic decision outcomes
- Topic 3: The balanced scorecard
- Topic 4: Building a balanced scorecard

## STRATEGY FORMULATION



# **Topic 1**

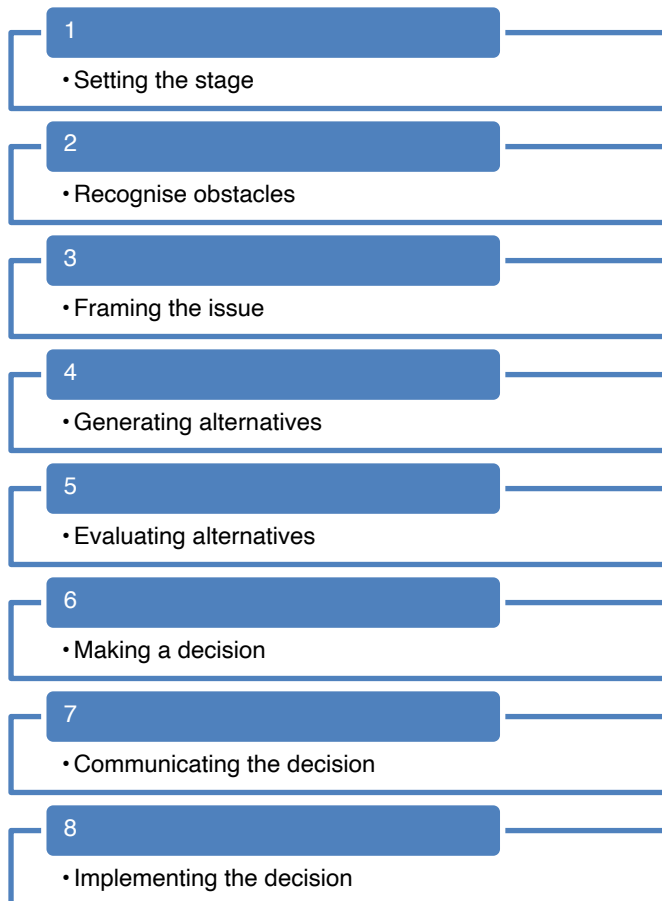
## **Making strategic decisions**



# Making strategic decisions

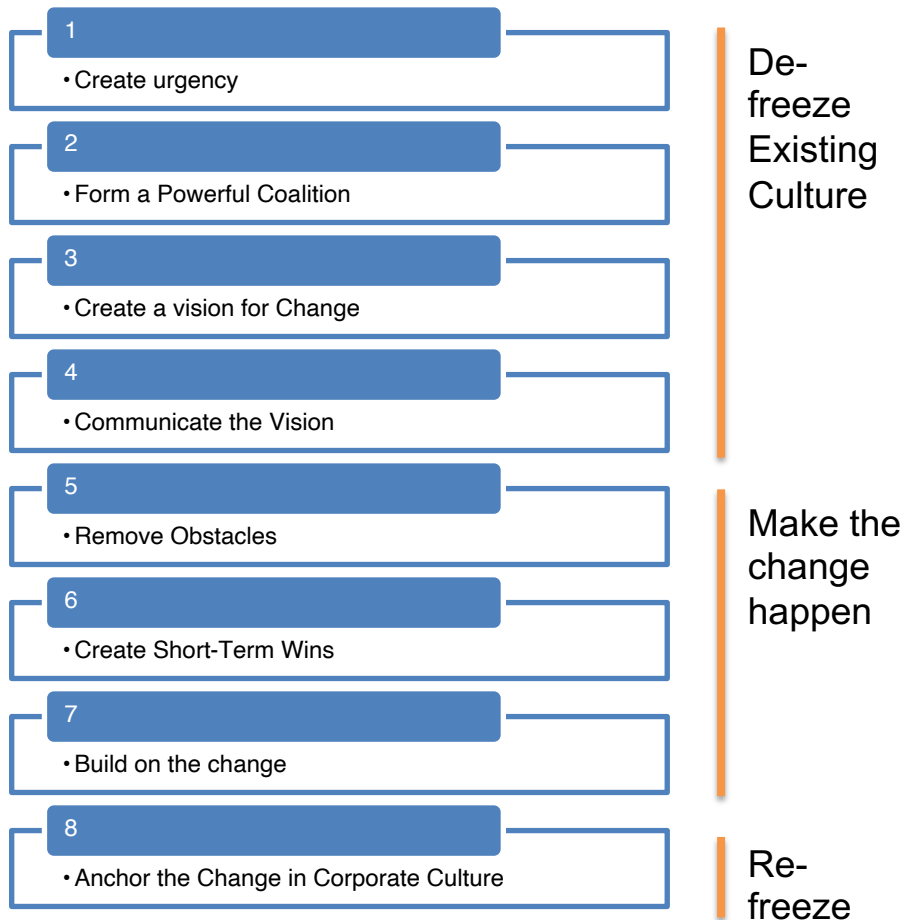
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## 8 steps of decision making process



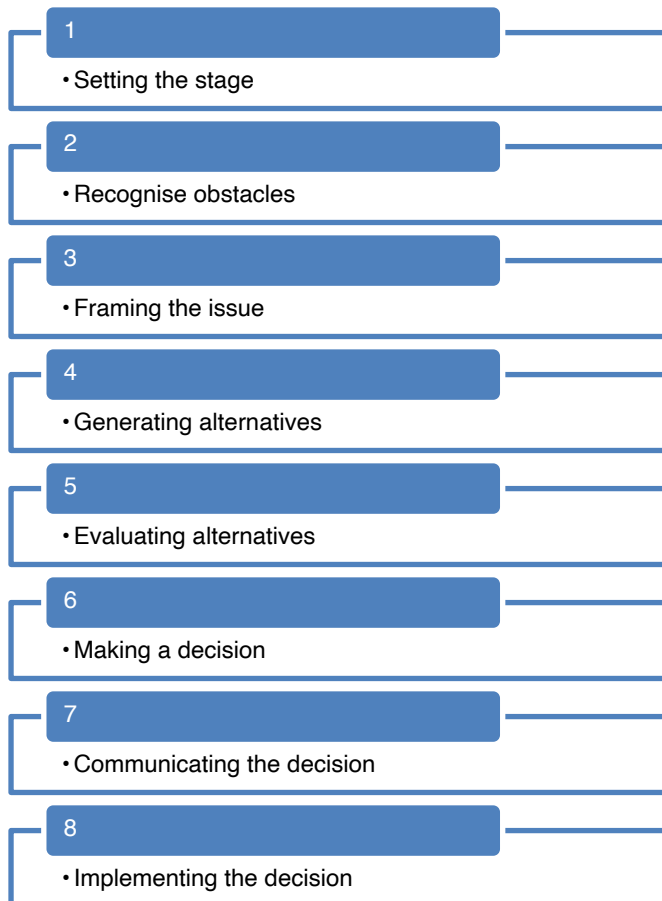
# Making strategic decisions

## Kotter's 8 step Change Model

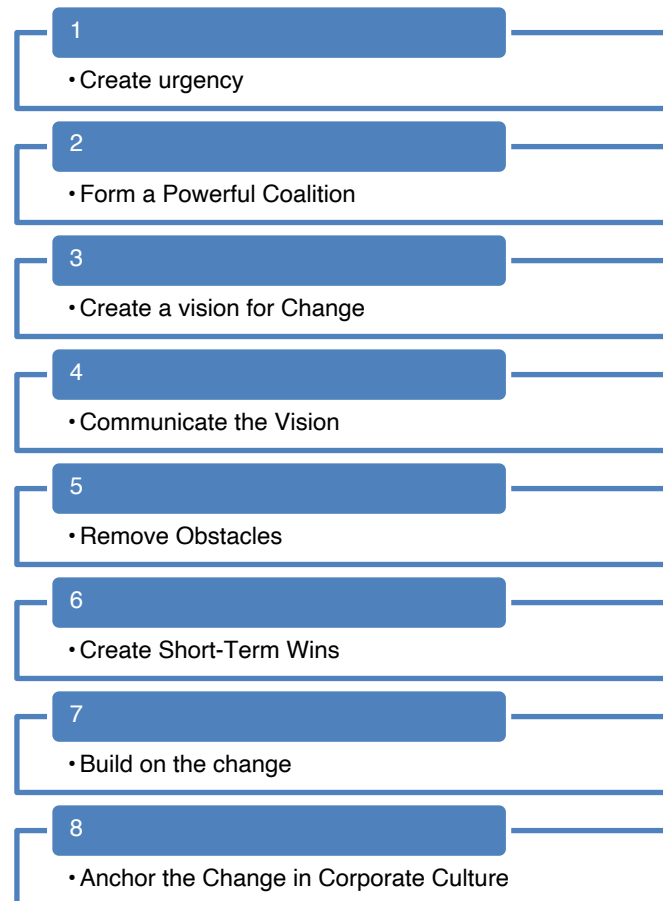


# Making strategic decisions

## 8 steps of decision making process



## Kotter's 8 step Change Model



De-  
freeze  
Existing  
Culture

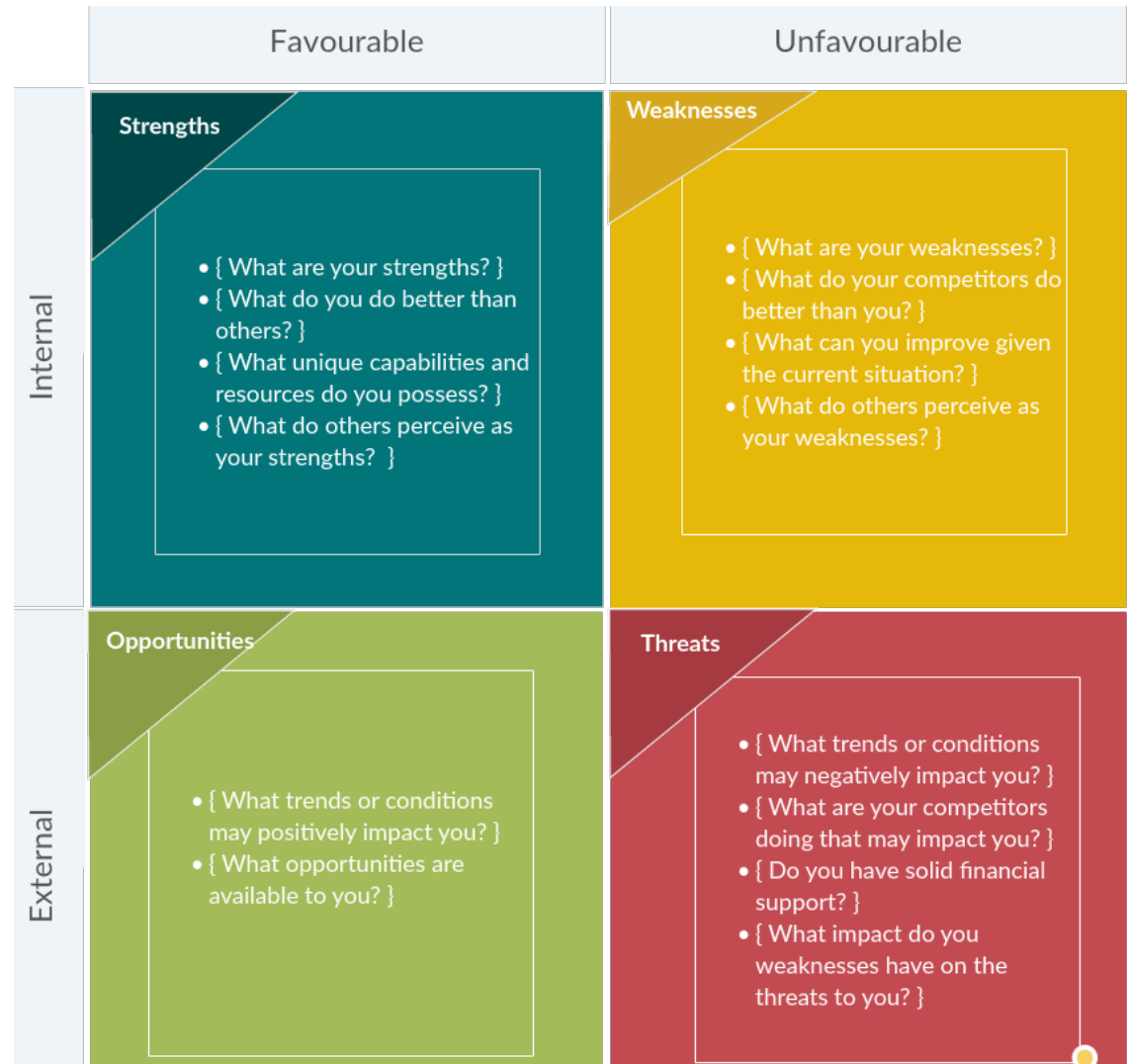
Make the  
change  
happen

Re-  
freeze

# Making strategic decisions

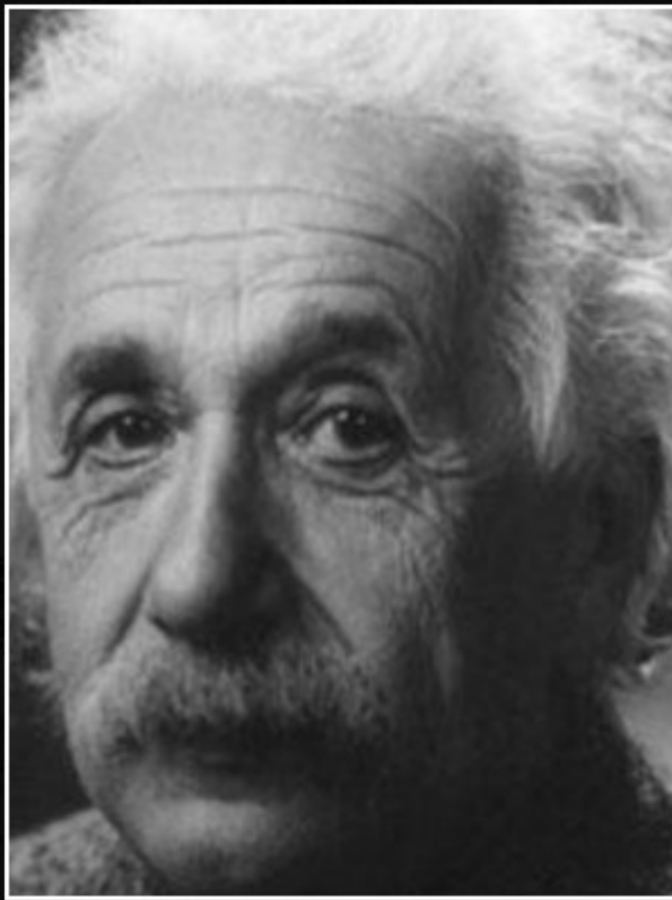
## SWOT ANALYSIS

- Framework for covering your basis and trigger thinking
- Its central purpose is to identify the strategies that will create a specific alignment between an organisation's resources and capabilities and the demands of the environment



# Making strategic decisions

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You can't solve problems with the  
same thinking that caused them.

— *Albert Einstein* —

AZ QUOTES

# **Topic 2**

## **Measuring strategic decision outcomes**

# Measuring strategic decisions

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## STRATEGIC CONTROL SYSTEMS

- Establish standards and targets against which performance can be measured
- Create systems for measuring and monitoring performance on a regular basis
- Compare actual performance against the established targets
- Evaluate results and, if necessary, take corrective action.

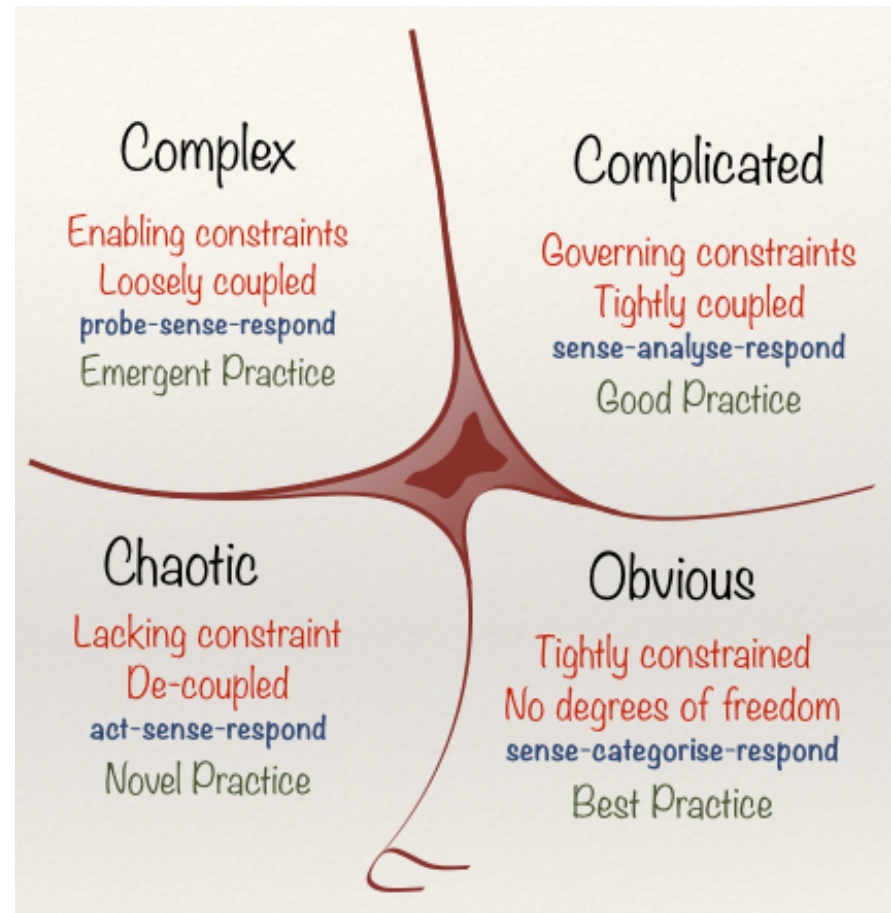
### But do they?

Delegated managers know more about what's happening than authorities and have different incentives

# Measuring strategic decisions

## THERE ARE LIMITS

- You measure things in order to take corrective action
- Sometimes the information is missing or contradictory
- There isn't always a straightforward relationship between actions and result
- By the time you have measured something the reality has changed (lagging and leading indicators)



## CYNEFIN FRAMEWORK

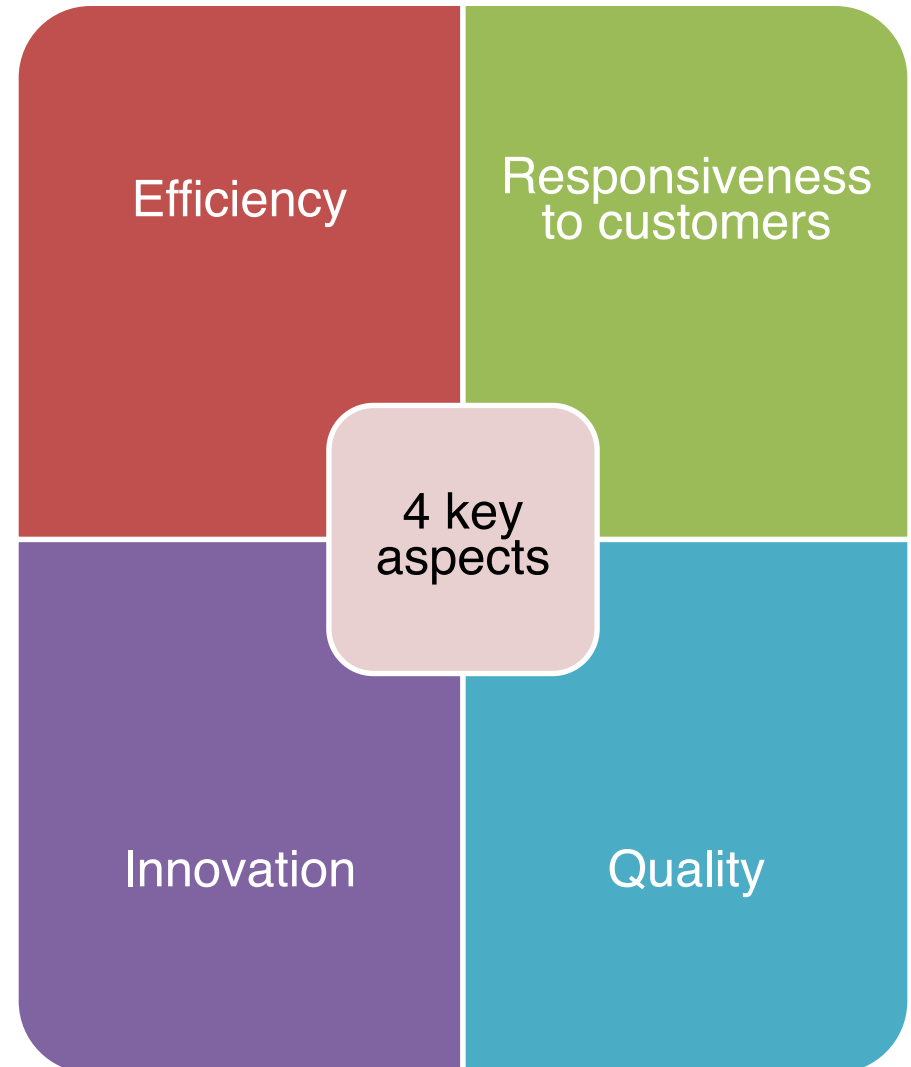


# **Topic 3**

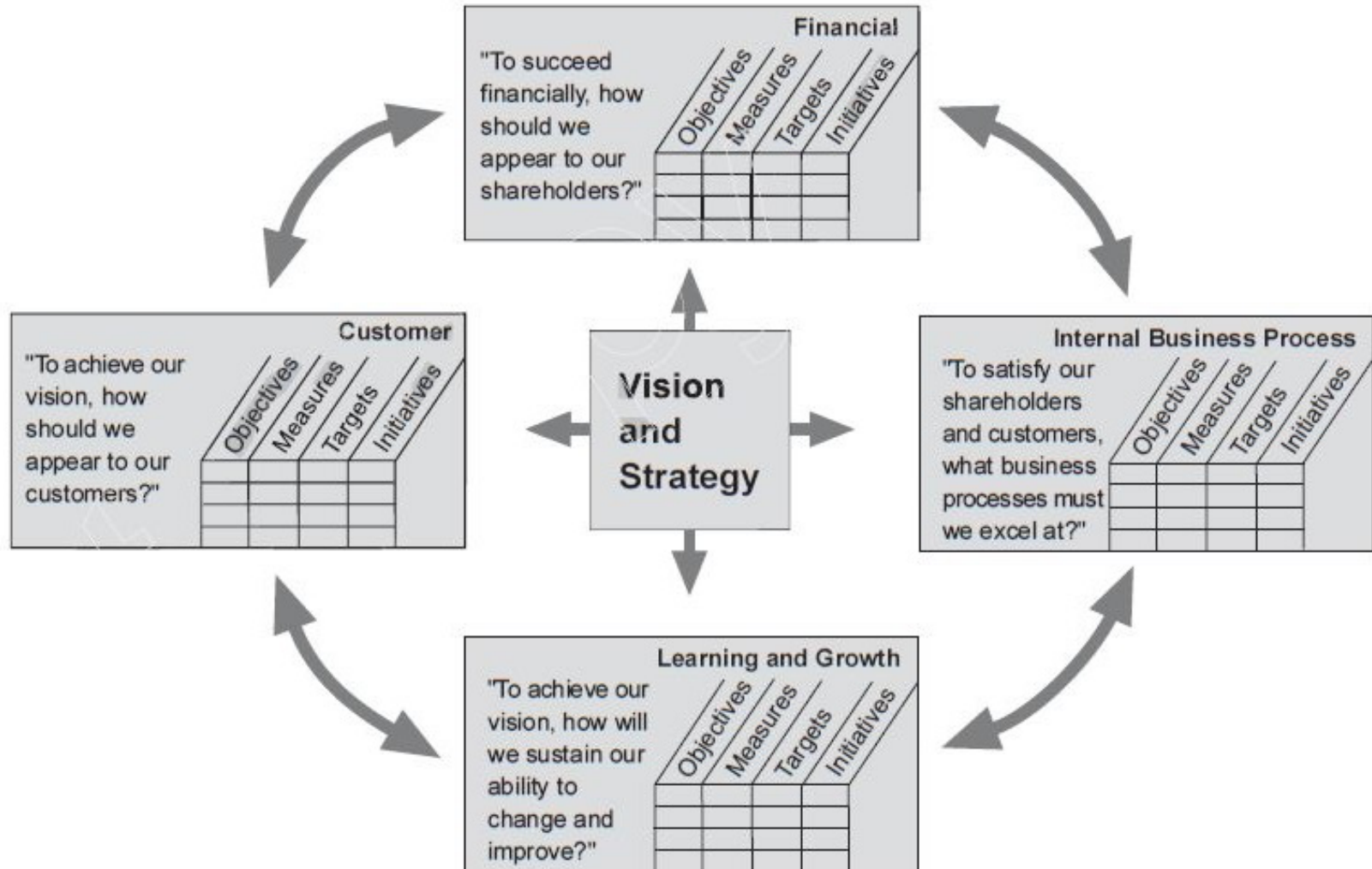
## **The balanced scorecard**

# The balanced scorecard

- Traditionally – only financial metrics (ROIC, NPAT etc) were considered to make strategic decisions, balanced scorecard provides an alternative to this myopic view
- Balanced Scorecard can be thought of as an Executive Scorecard for the business clearly measuring 4 key aspects of the organization



# The balanced scorecard



# The balanced scorecard



# **Topic 4**

## **Building a balanced scorecard**

# Building a balanced scorecard

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The six principles that generally guide the design of a balanced scorecard can be broken down into two categories: defining the measurement architecture and selecting strategic measures.

Let's take a closer look at the principles in each category.

# Building a balanced scorecard

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## DEFINING THE MEASUREMENT ARCHITECTURE

Select the appropriate organisational unit

Identify linkages to enable shared KPIs

Linkages around financial goals are often straightforward.

In other areas, linkages can be found by looking for (for example) shared customers, shared resources or shared goals.

# Building a balanced scorecard

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## SELECTING STRATEGIC MEASURES

Build consensus around strategic KPIs

Systematic portfolio management

Make the measures SMART

Make the measures balanced



# Building a balanced scorecard

## SMART Measures



### Specific

Who, What, Where,  
When, Why, Which

Define the goal as much  
as possible with no  
ambiguous language.

WHO is involved, WHAT  
do I want to accomplish,  
WHERE will it be done,  
WHY am I doing this  
(reasons, purpose),  
WHICH constraints /  
requirements do I have?



### Measurable

From and To

Can you track the  
progress and measure  
the outcome?

How much, how many,  
how will I know when  
my goal is  
accomplished?



### Attainable

How

Is the goal reasonable  
enough to be  
accomplished? How so?

Make sure the goal is  
not out of reach or  
below standard  
performance.



### Relevant

Worthwhile

Is the goal worthwhile  
and will it meet your  
needs?

Is each goal consistent  
with other goals you  
have established and  
fits with your  
immediate and long  
term plans?



### Timely

When

Your objective should  
include a time limit. "I  
will complete this step  
by month/day/year."

It will establish a sense  
of urgency and prompt  
you to have better time  
management.

# Building a balanced scorecard

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## Balanced Measures

