



# University of Dar es Salaam

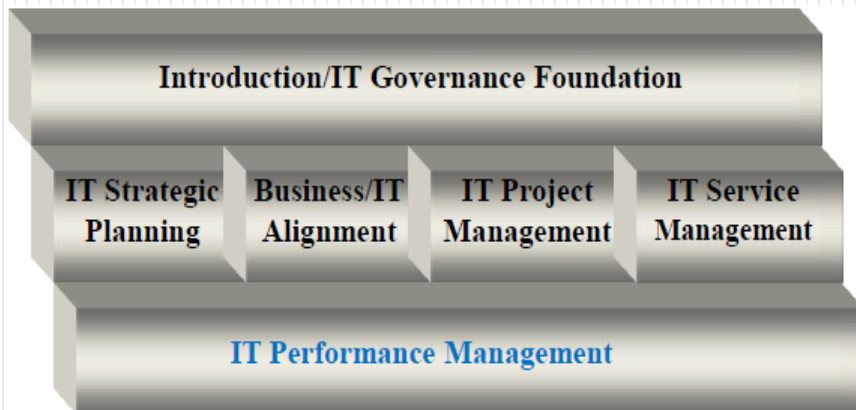
## Computing Centre



## Strategic Management of ICT in the Public Sector (SMICT)

### *Module 7: IT Performance Management (ITPM)*

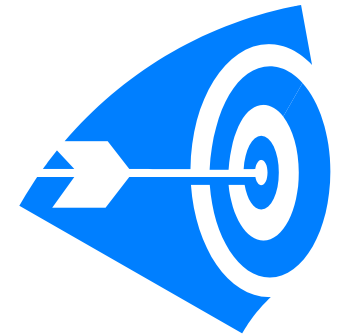
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# Module Objectives



- Understand focus and scope of ITPM
- Understand issues, challenges and growing importance/benefits of ITPM
- Identify mechanisms for implementation of ITPM in an Organization
- Understand and be able to apply ITPM best practices.



# Module Outline



- Purpose, importance and drivers for ITPM
- Principles for achieving ITPM excellence
- Key Performance Indicators (KPIs) in ITPM
- Linking objectives and Critical Success Factors(CSF) to KPIs
- ITPM framework (Balanced scorecard)
- Case study for ITPM



# Purpose, importance and drivers for ITPM



# Performance Management (PM)

- PM is a process used to evaluate and improve the efficiency and effectiveness of an organization.
- PM includes activities to ensure goals are consistently being met in an effective and efficient manner.
- PM can focus on :
  - Organization
  - Department
  - Processes or service
  - Employees

# PM Components



# Organizational performance

- Measures how an organization delivers products and services tied to its goals and objectives.
- Assess products and services from support functions e.g. IT, financial or human resources management.
- IT performance management
  - A subsets of organizational performance management system.

# IT Performance Management (ITPM)

- ITPM is defined as monitoring and measurement of relevant metrics to assess the performance of IT resources.

# Purpose of ITPM

- Set IT performance targets
- Design efficient and effective measures
- Systematically and accurately measure the IT outcomes
- Use the IT performance results for decision-making.

## Importance of ITPM

- Provides an early warning to correct problems, or to examine if corrective action is having any effect.
- Provides input to resource allocation and planning.
- Give organization enough time for adjustment as conditions are known in advance.
- Provides periodic feedback to employees, customers, stakeholders, and the general public about the quality, quantity, cost, and timeliness of products and services.
- Builds a common results language among all decision-makers.

# ITPM Approach

- Use organization practice areas that involve aligning IT systems with agency mission, goal, and objectives.
- Construct measures that determine how IT is supporting strategic customer and internal business needs.
- Implement performance measurement mechanisms at various managerial levels within an organization.

# Factors affecting ITPM

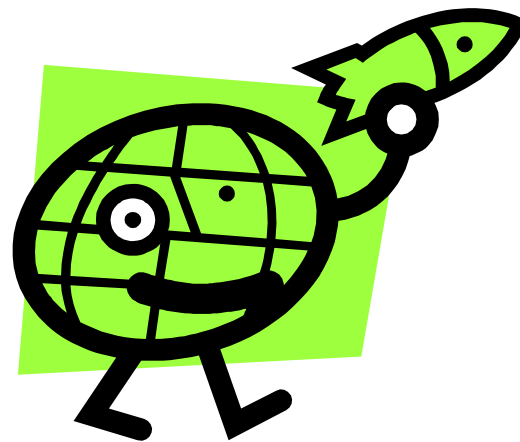
- Organization's leadership & functions-supports ITPM
- How important IT is for organization mission delivery.
- How widespread IT is used in the organization;
- The availability of resources such as skills and tools to support ITPM.

“All these factors, provide a unique environment impacting IT performance”.

## Exercise

1. How ITPM is conducted in your organizations?
2. Give example of cases where you have made decisions based on IT performance reports in your organization.

# Principles for achieving ITPM excellence



# Key principles for achieving best practice in ITPM

## 1. Treat ITPM as an ongoing process

- Plan, monitor and assign single point accountability

## 2. Strictness

- Future of the organization, depends on how it performs

## 3. Build incentives into the process

- Reward for good performance

## 4. Allow for the human factor

- Involvement of relevant people at the right time (not completing the process in the 'back room').

# IT plan and control model

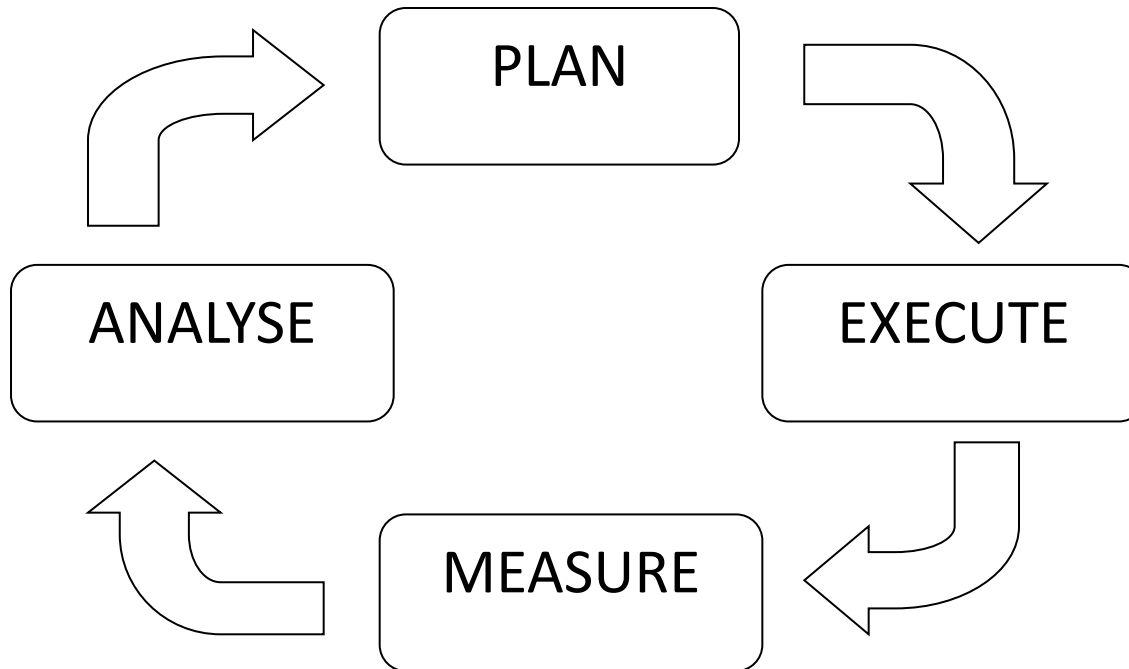
Plan: - Based on the goals and objectives of the IT function.  
- All activities need to be planned (as seen in IT strategic planning, business/IT alignment )

Execute: - Recourses are used to execute the planned activities  
(as seen in IT projects & services management)

Measure: - Shows if execution of activities develops according to plan (what and how to measure is done in ITPM)

Analysis: - Gives decision on reaction to the plan (change, add more resources e.t.c) ( Use of ITPM results)

# IT plan and control model



Source: *IT Performance Management, Torgensen and Weinstock*

# Key Performance Indicators (KPIs) in ITPM



# What are KPIs

- KPIs are metrics used to measure important business activities of a strategic nature.
- They are usually tied to a balanced scorecard or some other performance management frameworks (e.g. Applied Information Economics ).
- KPIs are financial and non-financial measures used to help an organization measure progress towards a stated organizational goal or objective.

# KPIs Example

- A KPI can be seen as a part of an objective (i.e. measurable goal) ...

*"The sale revenue shall increase 12 percent during 2010 compared to 2009"*

*KPI*                      *target*                      *time frame*                      *benchmark*

- ... or as the same thing as an objective

*"The sale revenue shall increase 12 percent during 2010 compared to 2009"*

*KPI*

# Selecting KPIs

- Things to consider:
  - Greater visibility of an organization
  - Better execution of strategy
  - Faster reaction to opportunities and threats
  - Improved collaboration and coordination across key business operations.
- Suitable examples include KPIs for measuring customer satisfaction, organizational learning, improved product quality, or overall organization efficiency.
- Involve right people in the KPIs identification process.

## Selecting KPIs...

- Badly chosen KPIs can also drive the organisation into confusion or in wrong direction
- KPIs can also lead sub-optimisation.
- For example, KPI such as "on-time shipments" can encourage dispatchers to send half-empty trucks to meet the schedules, which could be very costly for the organisation
- Another example, "customer talk per hours" may not encourage the employee to close the office.
- In these cases, other KPIs are needed in order to balance the chosen KPIs

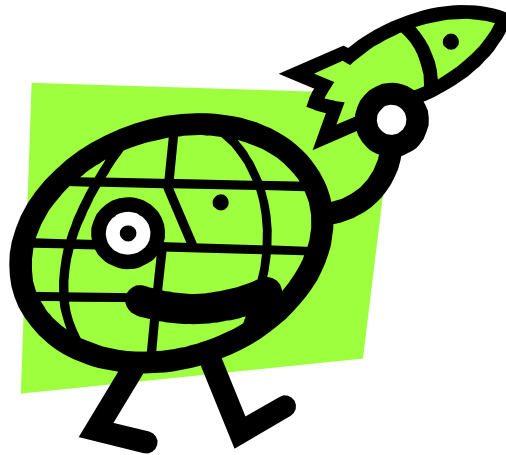
## Use of KPIs in ITPM...

- In ITPM, KPIs are derived from IT strategy.
- Normally an enterprise /MDA has long term strategy for achieving its mission, goals and objectives.
- The strategy is communicated to all business units in order to form basis upon which each business unit develops its own near term strategy. By using this technique, each business unit will be aligned with the enterprise/MDA strategy.
- Business strategic goals need to be identified in order to link them to IT strategy. KPIs can then be established that reflect the performance of IT in the organization.

# Use of KPIs in ITPM...

Strategic objectives	Strategic initiatives	Key Performance Indicators
High quality and responsive customer service	Manage customer enquiries (help desk)	Number of enquiries responded
	Ensure customer friendly and support	Average time taken to fix a problem
	Transaction control	% Aborted transactions
Cost effective	Cost of security	No of security breaches avoided
	Payroll & HR system implementation	No. of Application modules developed
Improve staff motivation	Attract & retain top talents	Rate of Key employee turnover
	Create Labor Force flexibility	No. of Skills per employee
		No. of Labors classification
Provide Service according to schedule	Schedule achievement	No. of schedules achieved
	System availability	Rate of Web service outage
Integrate corporate operations	Application development and maintenance	Number of new modules developed

# Linking Objectives and Critical Success Factors (CSFs) to KPIs



# CSFs

- CSFs are defined as limited number of areas in which satisfactory results ensure successful competitive performance for organization.

Enterprise CSFs include:

- Producing products/services that customers perceive to be of the highest quality.
- Designing new products/services quickly
- Keeping the cost of products/services low
- Responding quickly and fully to customer requests

## CSFs for ITPM

- Within the ITPM framework it is necessary to develop IT's critical success factors based on those of IT's stakeholders.
- They should be developed in support of stakeholder CSFs in order to assure alignment between “IT strategies and initiatives” and “the goals and objectives of the organization they serve”.

IT CSFs include:

- Ensuring that core business processes operate with minimal disruption
- Optimizing IT service delivery
- Responding quickly and fully to customer requests

## Linking objectives and CSFs to KPIs

- Objectives and CSFs focus on the overall IT strategy.
- CSFs are derived from strategic objectives, KPIs quantify CSFs to measurable targets.

Example:

- CSF would be something that needs to be in place to achieve objective;

Objective = launch of a new product or service.

CSF = Installation of a call centre for managing the customers

KPI = Number of new customers

# IT performance management framework “Balanced Scorecard”

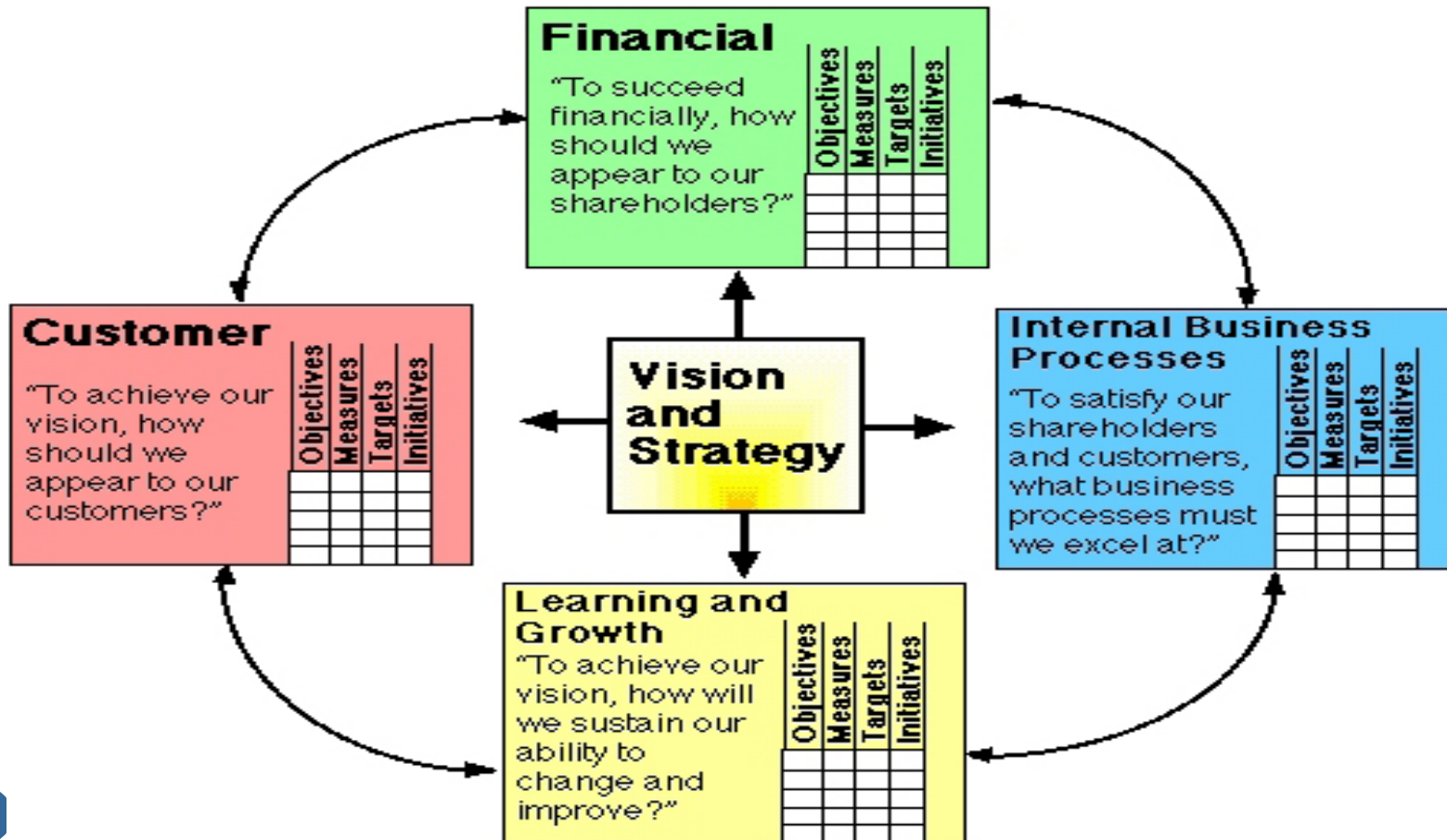


# Balanced Scorecard (BSC)

- BSC is a performance management system that enables businesses to drive strategy based measurement and follow-up.
- It align business activities to the vision and mission of the organization.
- It monitor organization performance against strategic goals/objectives.

# BSC...

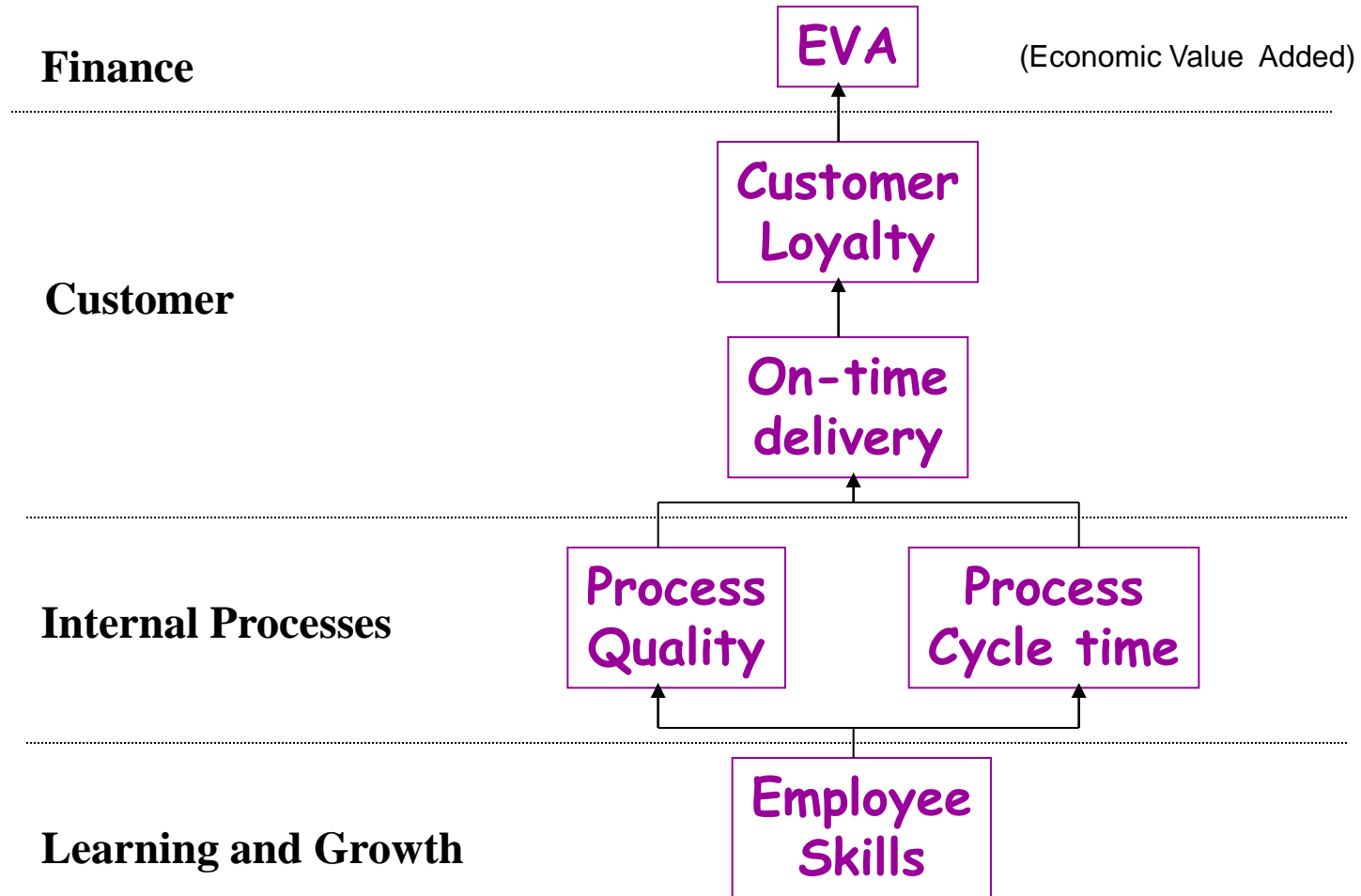
- The BSC suggests an organization to be viewed in four perspectives, and to develop metrics, collect data and analyze it relative to each of the four perspectives:



# BSC perspectives

- 1- Learning & growth perspective:** Directs attention to the organization's people and infrastructure. Enough investment in these areas is critical to long-term success
- 2- Internal perspective:** The development of a true learning organization supports success in the next BSC perspective, the internal perspective focuses on the performance of the key internal processes that drive the business
- 3- Customer perspective:** In order to translate better process into financial success, companies must first please their customers. The customer perspective consider the business through the eyes of a customer, so that the organization retains a careful focus on customer needs and satisfaction
- 4- Financial perspective:** Measures the ultimate results that the business provides to its stakeholders.

# BSC Course & Effect Relationship



# Comparison of Private and Public Perspectives

Perspective	Private Sector	Public Sector
Customer	How do customers see us?	How do people who use government services see us? Do we provide better services?
Internal Processes	What must we excel at?	Do our programs bring about Intended results?
Learning and Growth	Can we continue to improve and create value?	Can we continue to improve and add value for our customers and stakeholders?
Financial	How do we look to shareholder	How do we look to taxpayers

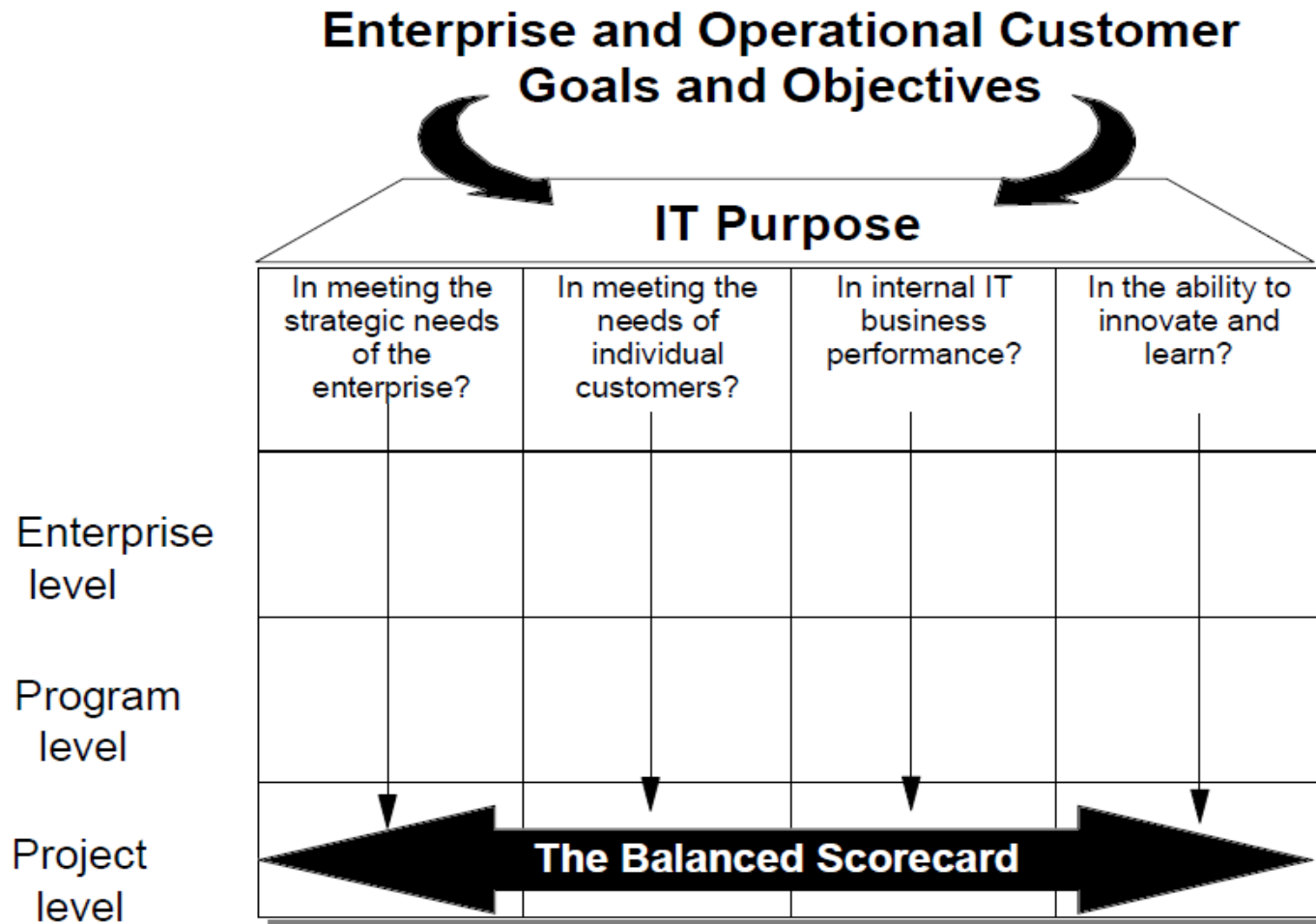
# IT Balanced Scorecard (IT BSC)

- IT BSC approach translates organizational IT strategy into specific measurable objectives
- Its important that the measurable objectives give a comprehensive view of all levels of activities, from the project level to the Enterprise level.
- The key starting point in developing IT balanced scorecard is the question of purpose from the IT results chain--"What is the current and future purpose of IT?"

# ITBSC setup

Dimension	Description	Example IT Measures
Customer perspective	<i>How do customers see us?</i> Measures that reflect factors that really matter to customers	Impact of IT projects on users, impact of IT's reputation among users, and user-defined operational metrics
Internal business perspective	<i>What must we excel at?</i> Measures of what the company must do internally to meet customer expectations	IT process metrics, project completion rates, and system operational performance metrics
Innovating and learning perspective	<i>Can we continue to improve and create value?</i> Measures of the company's ability to innovate, improve, and learn	IT R&D, new technology introduction success rate, training metrics
Financial perspective	<i>How do we look to shareholders?</i> Measures to indicate contribution of activities to the bottom line	IT project ROI, NPV, IRR, cost/benefit, TCO, ABC

# IT purpose in different management levels



# IT purpose in different management levels...



- A combination of measures are spread throughout different management levels so that they can easily communicate.
- This helps for decision-making and reporting needs.

# Example of IT BSC

Perspective	Strategic Objective	Strategic Initiative	Strategic Measure
Financial	Increase revenue in a cost effective way	Manage costs	Costs/budget
		High quality and responsive customer service	Average time taken to fix a problem
Customer	High quality and responsive customer service	Ensure customer friendly and support	Average time taken to fix a problem
		Manage customer enquiries (help desk)	Time taken to respond to customers
Internal Processes	Integrate organization operations	Payroll & HR system enhancement	System downtime rate
			Number of new modules developed
Learning and Growth	Improve staff competence, motivation, etc	Develop strategic competencies	Strategic competence availability
		Develop skills that enhance customer service delivery	%Customer complaints
		Develop skills that enhance process improvement	Number of processes improved
		Attract & retain top talents	Rate of Key employee turnover
		Motivate staff	Employee satisfaction index

# ITBSC Usefulness in Organization

- The ITBSC may uncover major problems, e.g. It may be possible that the top management decides to go for web applications for all of its processes, and that its IT function is not at all familiar with this technology as defined by ITBSC.
- The ITBSC provides the management with crucial control measures on IT expenses, user satisfaction, efficiency of operations, expertise of IT staff and may compare these measures with benchmarking figures.

# IT Performance Management— Case Study

## Exercise based on the case study: **ITBSC project**



1. Create ITBSC for the merged IT Division.

# Self-reflection



What did you learn in this module? What are implications to your Organization?



# End of Module 7

