



Business Intelligence Concepts, Tools, and Applications

Week 4: Business Performance Management Systems
Lesson 3: Balanced Scorecards and Six Sigma



Scorecards, Dashboards, and Six Sigma

- Learning Objectives
 - Identify four balanced scorecard perspectives
 - Comprehend the differences between dashboards and scorecards
 - Understand benefits of using balanced scorecard
 - Understand the benefits of using six sigma



Balanced Scorecard

- Scorecards enable organizations to improve processes and reduce costs by:
 - **Aligning strategy, plans, targets, and forecasts** by creating a consolidated, strategic view of existing data
 - **Communicating the strategy**, improving the collaboration and management process in general, and creating a dynamic and effective environment that supports initiatives
 - **Driving execution** through accountability and performance measurement

Source: Adopted from Vasiliu, A. Dashboards and Scorecards: Linking Management Reporting to Execution, [Hyperion Solutions](#).)

2

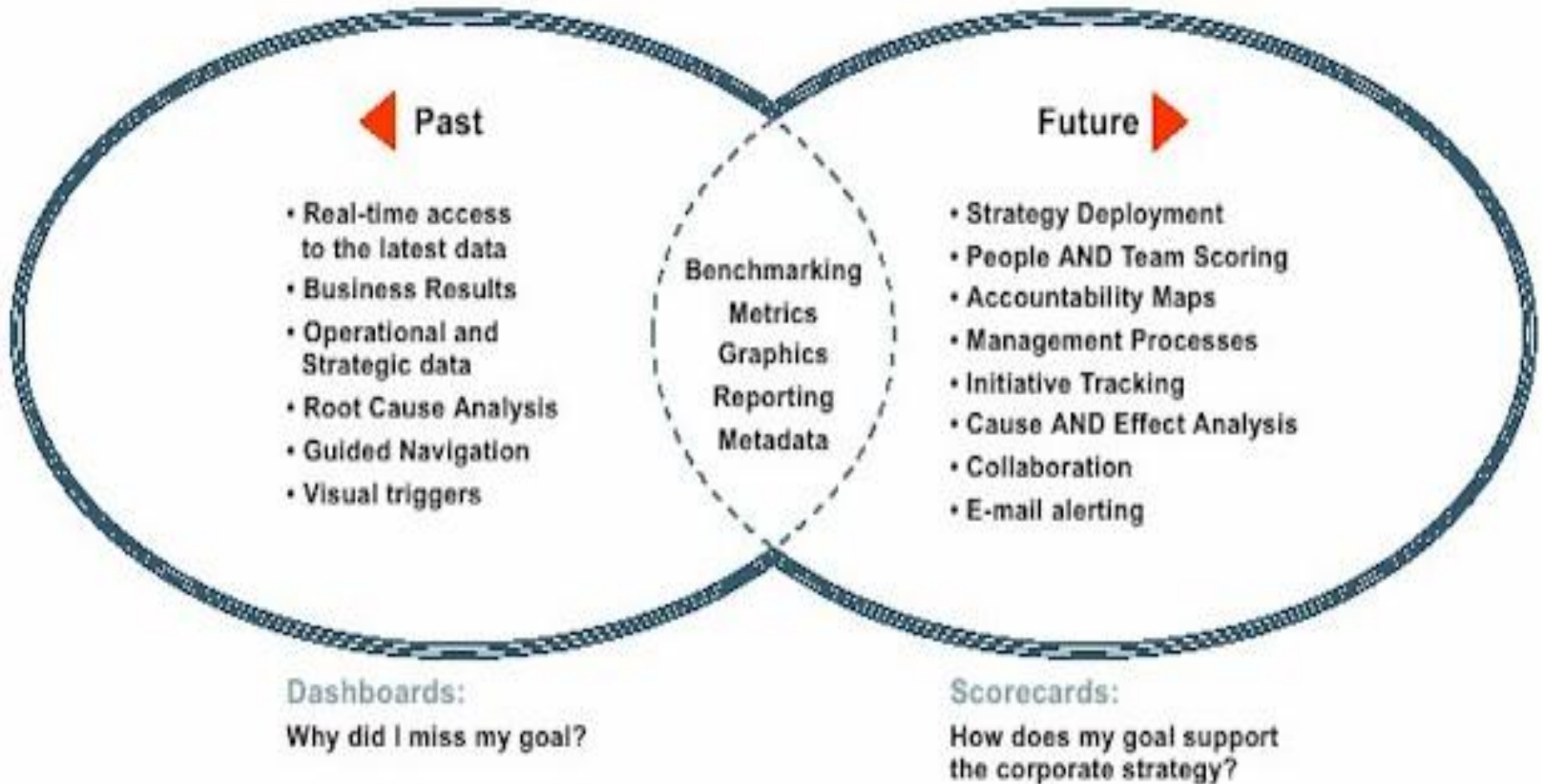


Differences between dashboards and Scorecards

- Scorecards are used by executives, managers, and staff
 - to monitor strategic alignment and success with strategic objectives and targets.
- Dashboards are mostly used at the strategic, operational and tactical levels.
 - to *monitor detailed operational performance* on a weekly, daily, or even hourly basis.



Dashboards and Scorecards Overview

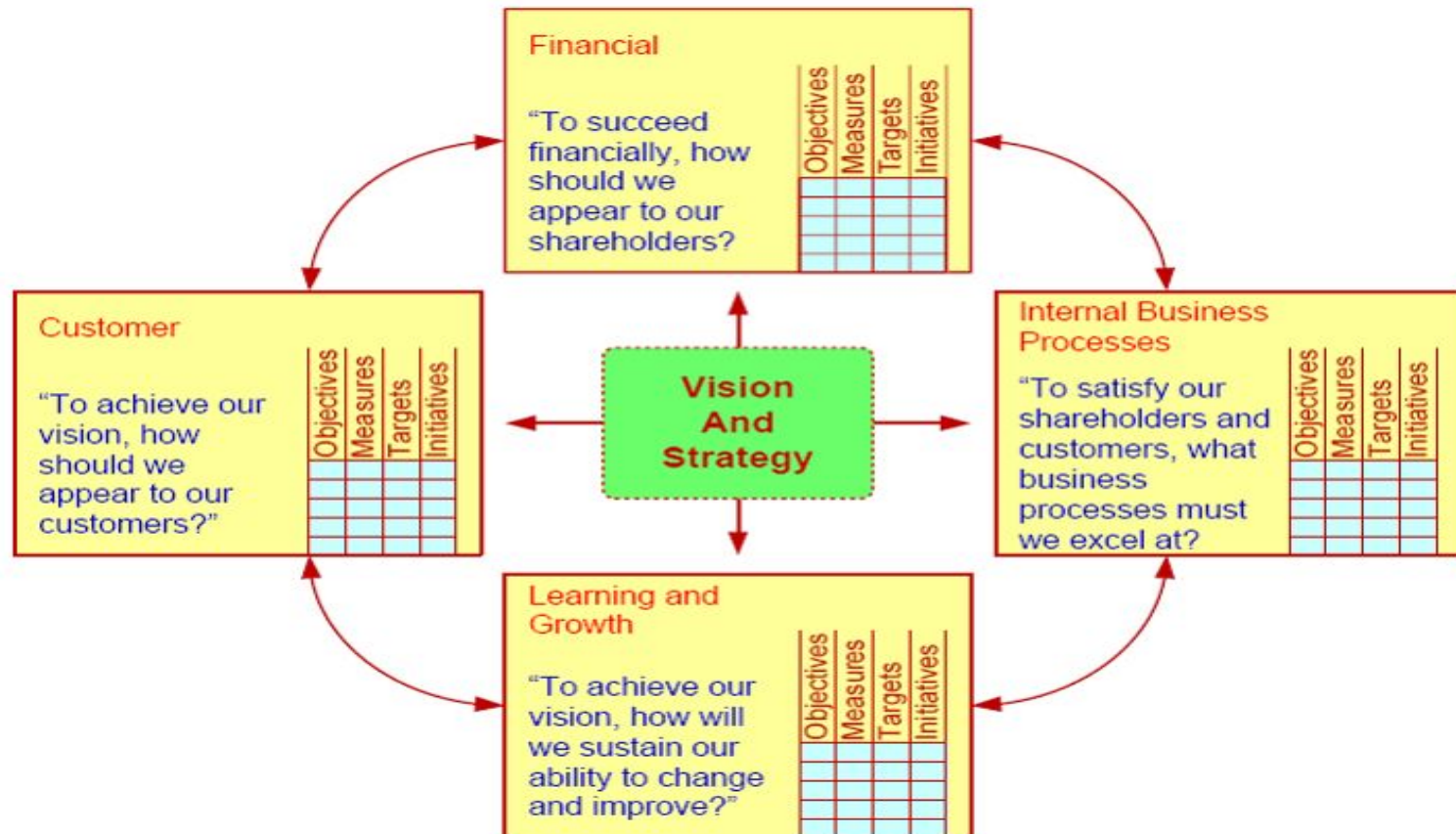


Source: Adopted from Vasiliu, A. Dashboards and Scorecards: Linking Management Reporting to Execution, [Hyperion Solutions](#)

4



Balanced Scorecard



From SHARDA, RAMESH; DELEN, DURSUN; TURBAN, EFRAIM, BUSINESS INTELLIGENCE AND ANALYTICS: SYSTEMS FOR DECISION SUPPORT, 10th Edition, © 2015. Used by permission of Pearson Education, Inc., New York, NY. All Rights Reserved.



Balanced Scorecard (BSC)

Four perspectives:

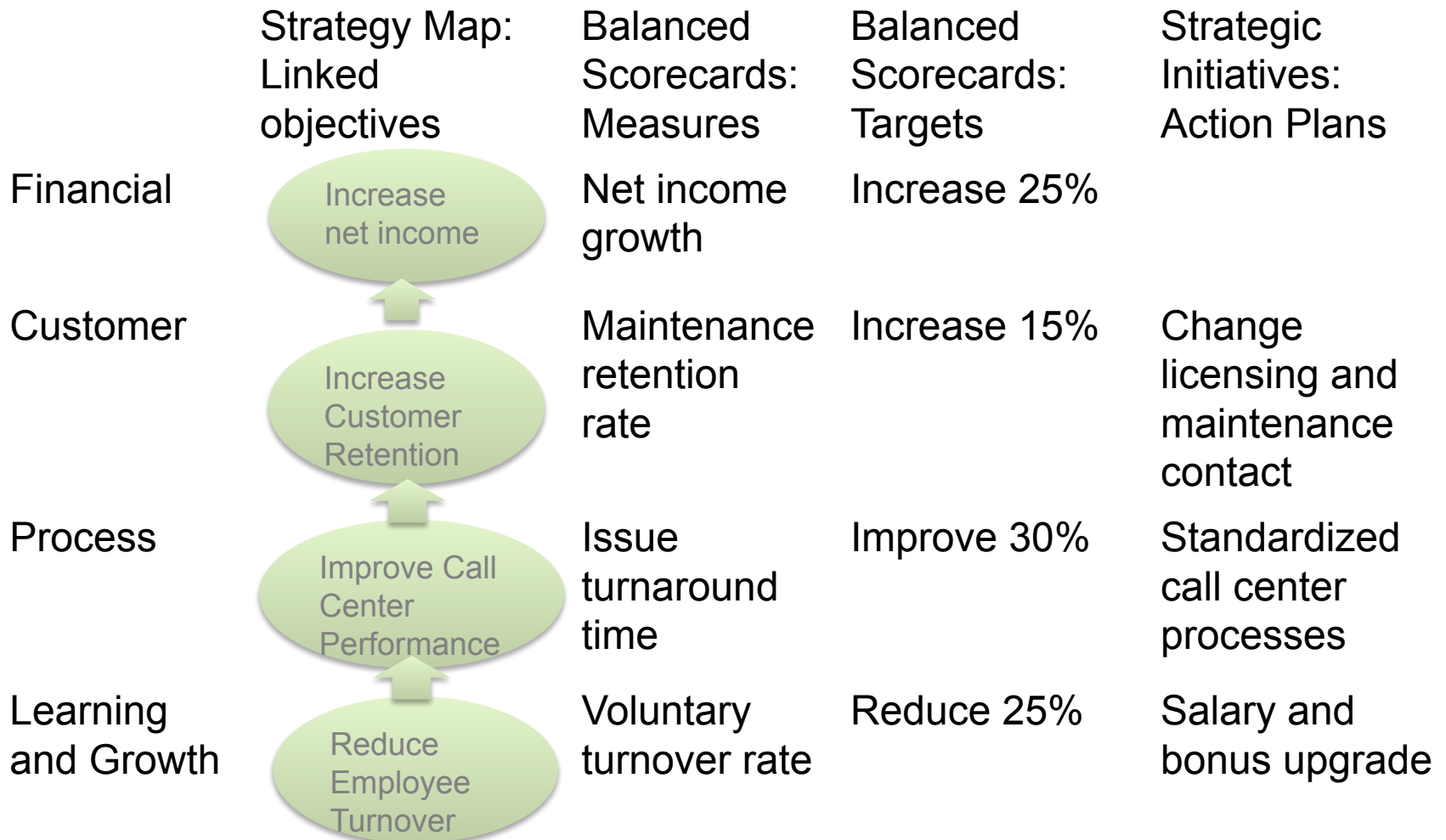
- **Customer:**
 - To achieve our vision how we should appear to our customers?
- **Financial:**
 - To succeed financially, how should we appear to our stakeholders?
- **Internal business processes:**
 - To satisfy our stakeholders, and customers, what business processes must we excel at?
- **Learning and growth:**
 - To achieve our vision, how will we sustain our ability to change and improve?

From SHARDA, RAMESH; DELEN, DURSUN; TURBAN, EFRAIM, BUSINESS INTELLIGENCE AND ANALYTICS: SYSTEMS FOR DECISION SUPPORT, 10th Edition, © 2015. Used by permission of Pearson Education, Inc., New York, Rights Reserved.

6



Strategy Map and Balanced Scorecard



From SHARDA, RAMESH; DELEN, DURSUN; TURBAN, EFRIM, BUSINESS INTELLIGENCE AND ANALYTICS: SYSTEMS FOR DECISION SUPPORT, 10th Edition, © 2015. Used by permission of Pearson Education, Inc., New York, NY. All Rights Reserved.



Building Scorecard



Source: Adopted from Dashboards and Scorecards: Linking Management Reporting to Execution., [Hyperion Solutions \(Links to an external site.\)](#)



Software tools

- Many Balanced Scorecards are reported via ad-hoc methods based around email, phone calls and office software.
- In more complex organizations, balanced scorecard reporting software (BI tools) is used to automate the production and distribution of these reports.



The BSC benefits

- Providing executives with a consolidated and strategic view of plans, budgets, and forecasts
- Alerting executives when initial performance signs reveal problems.
- Aligning the organization towards a common strategy
- Isolating and reducing inefficiencies in customer and product strategies
- Tying performance measures and non-financial targets
- Increasing buy-in from decision makers
- In-depth insight into real-time financial and operational results

From SHARDA, RAMESH; DELEN, DURSUN; TURBAN, EFRAIM, BUSINESS INTELLIGENCE AND ANALYTICS: SYSTEMS FOR DECISION SUPPORT, 10th Edition, © 2015. Used by permission of Pearson Education, Inc., New York, NY. All Rights Reserved.

10



Six Sigma

- A performance management methodology aimed at reducing the number of defects in a business process to as close to zero *defects per million opportunities* (DPMO) as possible.
 - In numeric terms, the norm has been 6,200 to 67,000 DPMO.
 - This level of variability represents a three- to four-sigma level of performance.
- To achieve a Six Sigma level of performance, the company would have to reduce the number of defects to no more than 3.4 DPMO.

From SHARDA, RAMESH; DELEN, DURSUN; TURBAN, EFRAIM, BUSINESS INTELLIGENCE AND ANALYTICS: SYSTEMS FOR DECISION SUPPORT, 10th Edition, © 2015. Used by permission of Pearson Education, Inc., New York, NY. All Rights Reserved.

11



Comparison of Balanced Scorecard and Six Sigma

Balanced Scorecard

Strategic management system

Relates to the longer-term view of the business

Designed to develop balanced set of measures

Identifies measurements around vision and values

Critical management processes are to clarify vision/strategy, communicate, plan, set targets, align strategic initiatives, and enhance feedback

Balances customer and internal operations without a clearly defined leadership role

Six Sigma

Performance measurement system

Provides snapshot of business's performance and identifies measures that drive performance toward profitability

Designed to identify a set of measurements that impact profitability

Establishes accountability for leadership for wellness and profitability

Includes all business processes-management and operational

Balances management and employees' roles, balances costs and revenue of heavy processes

Corporate Performance Measurement Portals, Scorecards, Dashboards

- provides a container for several pieces to plug into so that the aggregate tells a story.
- For example, a balanced scorecard that displays portlets for financial metrics combined with organizational learning and growth metrics.

