Performance Measurement
Performance Measurement is a key tool used by an entity through which achievement of goals/targets will be evaluated. To assess whether goals have been achieved, an evaluation is conducted using measures deemed appropriate for such an evaluation.

In measuring the performance, it (generally) compares with a benchmark such as previous achievement, expectation and/or competitors’ achievement.

Both people (employees) and organization (as a whole) will be motivated by the achievement of goals. Generally, entity’s goals are expressed through the mission.

Mission is a common path to achieve long term unique goal of every corporation. (why do we exist?)
Performance Measurement - internally

It is widely used practice to divide entire organization into key business units called Segments/Divisions. This helps to;

- Localize decision making. This **improve timelines of and access to information**.
- **Improve commitment and motivation** of managers responsible for each unit.
- Provide **inputs to strategic long-term planning** of whole organization.
- Assign **responsibility & authority** to divisional managers.

An entity’s performance reflects both inside and outside perspective at a particular time. 

**Outside** - Restricted information and generally could find from the company’s annual report.

Balance Scorecard (BSC)

The balance scorecard is an internal performance measurement module widely used by entities which provides a set of performance measures that reflect achieving an entity’s goals & strategies. As framework provided, it measures (from) four perspectives.

- **Financial** - How do we create value for our shareholders?
- **Customer** - What do new and existing customers value from us?
- **Internal Operations** - What processes must we excel as to achieve our financial and customer objectives?
- **Innovation & Improvement activities** - How can we continue to improve and create value?
Balance Scorecard (Contd.)

How do Customers see us?

- **Customer Perspective**
  - **Goals**
    - New Products
    - Responsive supply
    - Preferred
    - Supplier
    - Customer Partnership
  - **Measures**
    - Per cent of sales from new products
    - Per cent of sales from proprietary products
    - On-time delivery (defined by customer)
    - Share of key accounts’ purchases
    - Ranking by key accounts
    - Number of cooperative engineering efforts

Financial Perspective

- **Goals**
  - Survive
  - Succeed
  - Prosper
- **Measures**
  - Cash Flow
  - Quarterly sales growth and operating income by division
  - Increased market share and ROE

How do we look to shareholders?

What must we excel at?

- **Internal Business Perspective**
  - Technology capability
  - Manufacturing
  - Excellence
  - Design
  - Productivity
  - New product introduction
  - Manufacturing geometry vs. competition
  - Cycle time
  - Unit Cost
  - Yield
  - Silicon efficiency
  - Engineering efficiency
  - Actual Introduction schedule vs. plan

Can we continue to improve and create value?

- **Innovation and Learning Perspective**
  - Technology Leadership
  - Manufacturing Learning
  - Product Focus
  - Time to Market
  - Measures
    - Time to develop next generation
    - Process time to maturity
    - Per cent of products that equal 80% sales
    - New product introduction vs. competition
Development of a BSC

- Use the scorecard as the basis for implementing strategic goals.
- Put in place the strategies before implementing the balance scorecard. Ad-hoc development will re-enforce the wrong behaviour.
- Ensure that senior management (CEO) is committed to its success.
- Trial the scorecard to learn valuable lessons. Don’t be panic.
- Gradually introduced the scorecard to each business units to ensure that the scorecard meets the business unit’s needs.
- Do not use the scorecard as an extra level of top down control. This will lead to opposition of rather than collaboration.
- Do not adopt a standardized scorecard. It should be customised and align with corporate strategy.
- Do not underestimate the need for training & communication.
- Do not over complicate the scorecard by striving for perfection, or delay its introduction by always searching for better indicators.
- Do not underestimate the additional cost associated with recording/administrating and reporting the scorecard.
Criticism made against using BSC

- It focuses mainly on shareholders’ view point.
- It does not give proper attention to employees & suppliers.
- It does not address adequately the selection of specific measures for the role of performance target.
- The casual relationship between some of the measures and their economic impact has never been empirically tested and proven.

Divisional performance measurement

The Organization structure is the structure taken by an entity to help direct and control its resources for the attainment of its mission. It also helps to delineate the level of responsibility and authority of a division.
Divisional Performance Measurement (Contd.)

**Functional**
- Board
  - Manufacturing
  - Marketing
  - Distribution
  - Administration

**Geographical**
- Board
  - Australia
  - New Zealand
  - Malaysia

**Enterprise**
- Board
  - Beer
  - Market wine
  - Boutique wine

**Geographical & Functional**
- Board
  - Australia
  - New Zealand
  - Malaysia
    - Manufacturing
    - Marketing
    - Distribution
    - Administration
Effective Performance Measurement

The Performance Measurement system of an entity generally aligns with its structure. That is, each division, group or segment identifies its contribution to the overall goal of the entity, and is evaluated on the basis of this contribution.

Key Business Centres;
1. **Cost Centre** - Responsible for the production of goods/services at minimum cost.
2. **Revenue Centre** - Solely responsible for generating target level of revenue.
3. **Profit Centre** - Responsible for evaluate & control cost inputs and outputs of revenue through which attain required level of profitability.
4. **Investment Centre** - Responsible for the Investment activities such as investment in assets, deposits.

Notice any negative impact to the whole organization on above.
Effective Performance Measurement (Contd.)

The responsible manager’s performance is assessed on the division’s overall contribution to the entity’s goal.

When evaluating the divisional performance, it should clearly identify the controllable and non-controllable cost and revenue.

The preparation of divisional performance report designed to:

- Evaluate the performance of each division.
- Provide guidance for the pricing of goods & services.
- Evaluate the level of investment in each division.
- Evaluate the overall efficiency/effectiveness of each division.
Performance Evaluation

The evaluation of performance with respect to the investment center is based on the economic return relative to the invested resources.

Following key indicators used to evaluate the performance.

1. Return on Investment (ROI)
2. Residual Income (RI)
3. Economic Value Added (EVA)

Formulas:

- ROI = \( \frac{\text{Profit}}{\text{Investment}} \)
- Du Pont ROI = \( \frac{\text{Return on sales} \times \text{Investment Turnover}}{\text{Profit} \times \frac{\text{Sales}}{\text{Investment}}} \)

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>- Easy to use &amp; understand.</td>
<td>- ROI is a percentage measure, not a measure of absolute values.</td>
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<td>- Direct link between profit &amp; investment help managers.</td>
<td>- Doesn’t consider size and type of the divisions.</td>
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<tr>
<td>- Can easily link profit at income statement and investment</td>
<td>- Easily can manipulate by the managers.</td>
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<tr>
<td>and investment in balance sheet at any given time.</td>
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Performance Evaluation (Contd.)

RI = Profit before tax - (required rate of return x investment)

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<td>- Help in decision making than ROI.</td>
<td>- Better for short - term decision making.</td>
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<td>- Considers different level of capital invested in different divisions.</td>
<td>- Cost of the capital not easy to determine</td>
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EVA = NOPAT - (Cost of capital x Capital)

Note: Adjustments require when calculating NOPAT.
- Add R & D Costs.
- Add marketing expenditures.
- Not consider the amortization (Goodwill)

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“Companies don’t succeed, people do.”

The company itself brings owners, workers and resources together under a legal structure. The people working within the companies perform multiple tasks individually and in teams to help accomplish the organization’s goals.

Performance measurement at the individual level should highlight to the employees what tasks are important.

Another consideration of the performance measurement system is the reward system which basically focused both respective individuals and group of people/team work.

Note: Most of the instances, entity might link both performance measurement and reward to the short-term and long-term perspectives.
Non-financial Performance Evaluation

An entity must analyse and understand non-financial performance indicators along with the financial performance indicators to establish well effective performance measurement system.

The balance scorecard framework (identified earlier) considers both financial and non-financial measures. Non-financial performance measures are being (generally) more operational in nature.

Most of non-financial performance measurement equipped with following benefits.

- They are more user friendly and relevant to non-management employees.
- They are more likely to lead to longer-term performance gain, as they tend to be linked more readily to the organization’s goals.
- They tend to diminish the likelihood of myopic management decision making, as they usually promote more long-term thinking.
Non-financial Performance Evaluation (Contd.)

- They can identify problems in a *more timely fashion*, and locate the entity’s problems and benefits.
- They *can be easily structured* to suit an organization’s goals.
- They *can be benchmarked easily*.

Non-financial performance measures have following disadvantages.

- They are *subjective* in nature.
- Including too many measures *can impede understanding* and be costly to collect, so there is a need to limit the number of measures.

Besides the above obstacles/disadvantages, more the qualitative factors will be benefited.
Non-financial Performance Evaluation (Contd.)

Quality - customer satisfaction
- Number of defective products shipped
- Customer response time
- Warranty claims
- Number of customer complaints

Quality - supplier
- Percentage of defects per delivery
- Frequency of defective supplies
- Number of late deliveries

Quality – internal measures
- Number of defects per product /product run
- Measure of scrap and rework in the production process
- Number of suggestions from employees
- Process downtime

Inventory
- Inventory turnover
- Warehouse space reduction
- Warehouse space utilization
Non-financial Performance Evaluation (Contd.)

Equipment and maintenance
- Machine use and capacity
- Machine availability
- Maintenance hours
- Time between failure

Employees Performance Measures
- Employee morale: percentage of absenteeism, staff turnover
- Health and safety: injury rate, workers’ compensation claims
- Employee skill: age and experience statistics, percentage of trained staff, staff educational qualifications
- Employee productivity: labor efficiency, output measures

Market Performance Measures
- Market share growth (percentage and volume)
- Market leadership
- Market vulnerability