BALANCED BUSINESS SCORECARD

Executive Summary

•The balanced scorecard is a *management system* (not only a measurement system).

•It enables organizations to clarify their vision and strategy and translate them into action.

•It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results.

•Fully deployed, the balanced scorecard transforms strategic planning from an academic exercise into the nerve center of an enterprise.

- A new approach to strategic management was developed in the early 1990's by Drs. Robert Kaplan (Harvard Business School) and David Norton.

- They named this system the 'balanced scorecard'.

- The balanced scorecard approach provides a clear prescription as to what companies should measure in order to 'balance' the financial perspective.

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⇨ The balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success

⇨ These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation.
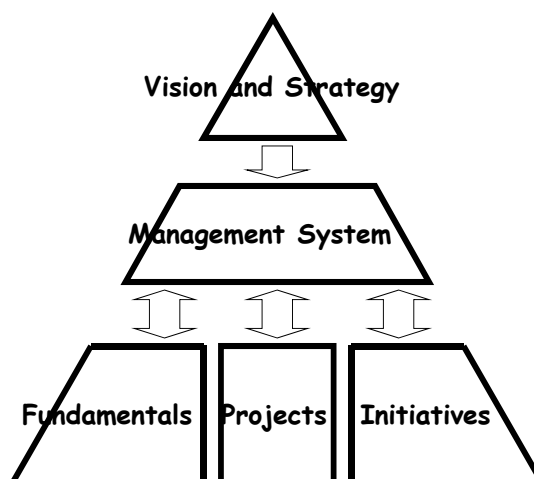
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Presentation covers

- **Need for a balanced business scorecard**
- **What is a balanced scorecard**
- **How to build and implement a balanced scorecard**

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The importance of a management system

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TAKING OFF THE BLINDERS...

" In strategy it is important to see distant things as if they were close and to take a distanced view of close things."

Miyamoto Musashi
The Book of Five Rings

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Elements of a good Management System

- Derived from the Vision and Strategy of the organization
- Planning
  - Long term strategic plan
  - Short term business plan and budgets
- Measurement
  - Focused set of measures
  - Measures represent organization's plan and vision
- Review
  - Plans are regularly reviewed and suitably revised
- Performance
  - Rewards are linked to driving key measures

Genesis of Balanced Scorecard

- **Situation**
  - **Bias towards Financial Measures**
  - **Initiatives not all linkable to financials, hence**
    - Either not undertaken
    - Or too many initiatives
  - **Top Management need to focus**

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Advantages

Balanced Scorecard because:

| financial and ... | nonfinancial indicators |
external and ...	internal measures
outcomes and ...	performance drivers
quantitative and ...	qualitative factors
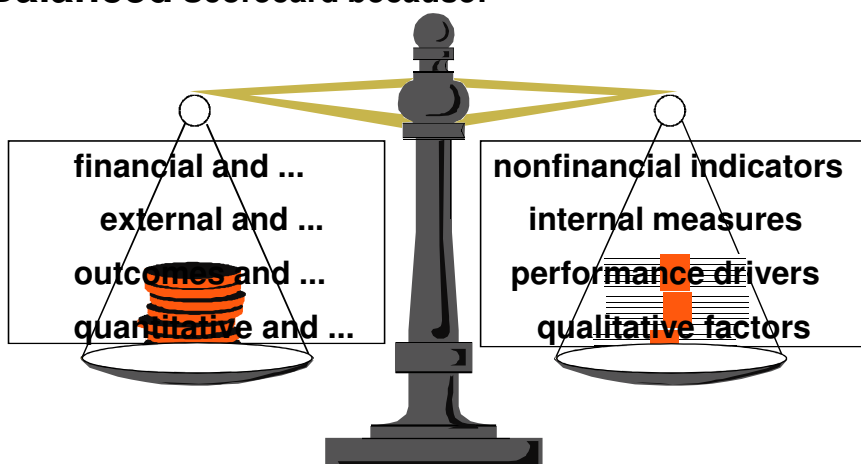
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Genesis of Balanced Scorecard

- **The 'Balanced Scorecard' solution - Kaplan & Norton**
  - **A set of measures based on**
    - **Finance**
    - **Customer**
    - **Internal processes**
    - **Learning and growth**
  - **Linked to vision and strategy**
  - **'Balances' short and long term needs**
  - **Builds 'leading' and 'lagging' indicators**

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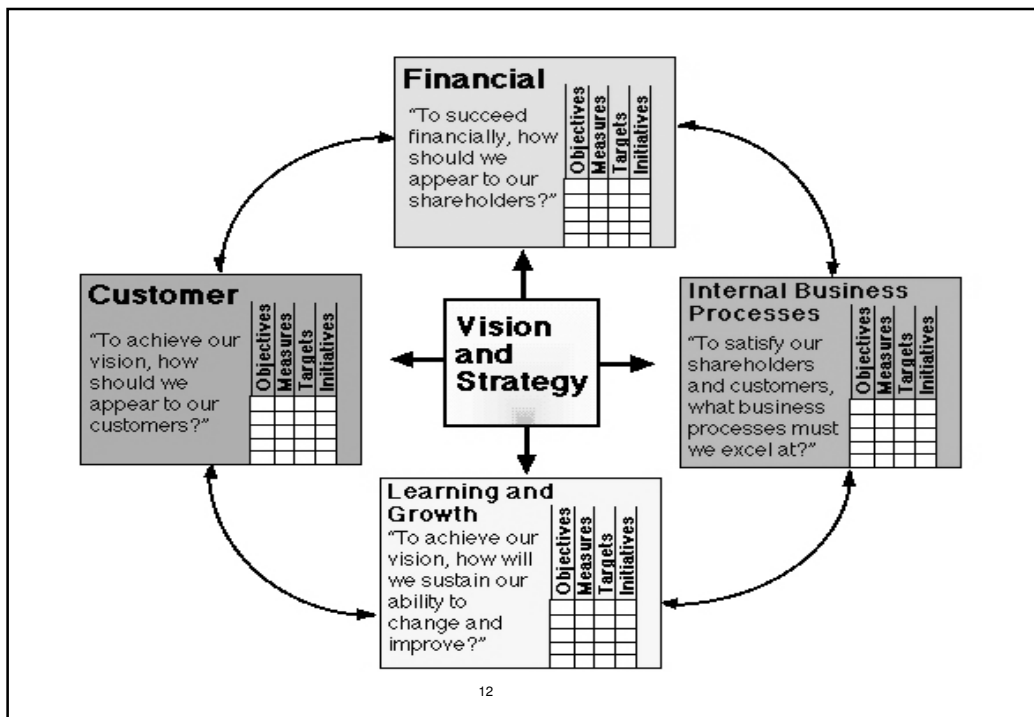
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•You can't improve what you can't measure.

•Metrics must be developed based on the priorities of the strategic plan, which provides the key business drivers and criteria for metrics that managers most desire to watch.

•Processes are then designed to collect information relevant to these metrics and reduce it to numerical form for storage, display, and analysis.

•Decision makers examine the outcomes of various measured processes and strategies and track the results to guide the company and provide feedback.

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The value of metrics is in their ability to provide a factual basis for defining:

•Strategic feedback to show the present status of the organization from many perspectives for decision makers
•Diagnostic feedback into various processes to guide improvements on a continuous basis
•Trends in performance over time as the metrics are tracked
•Feedback around the measurement methods themselves, and which metrics should be tracked
•Quantitative inputs to forecasting methods and models for decision support systems

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Return on net assets diagnostic measures
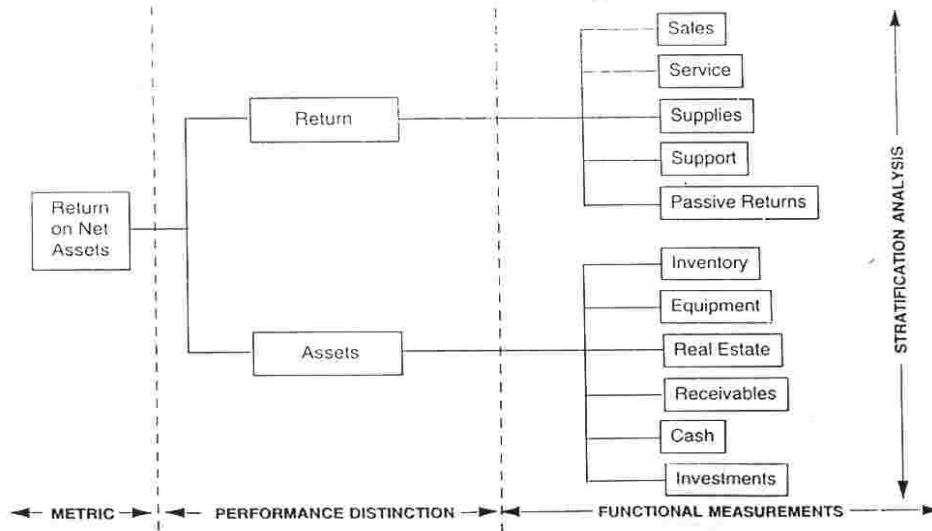
Operating profit diagnostic measures

Customer satisfaction diagnostic measures

Employee satisfaction diagnostic measures
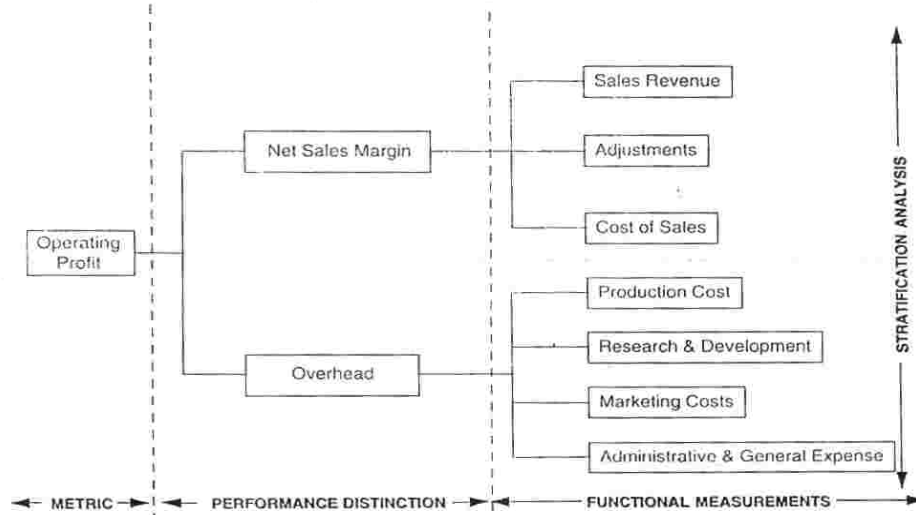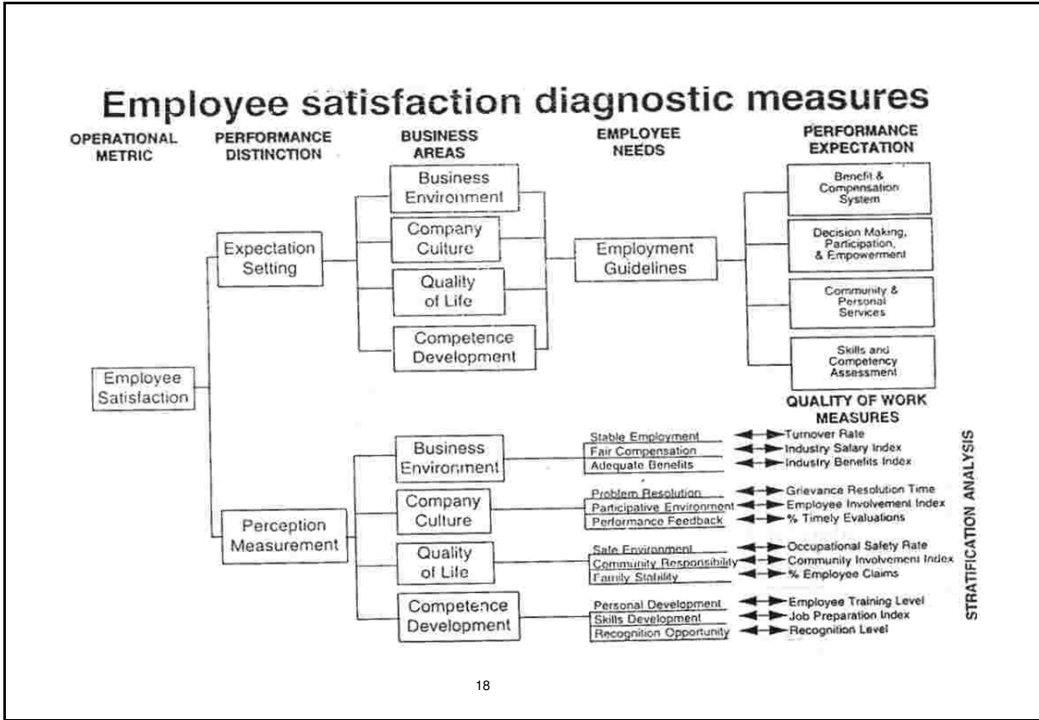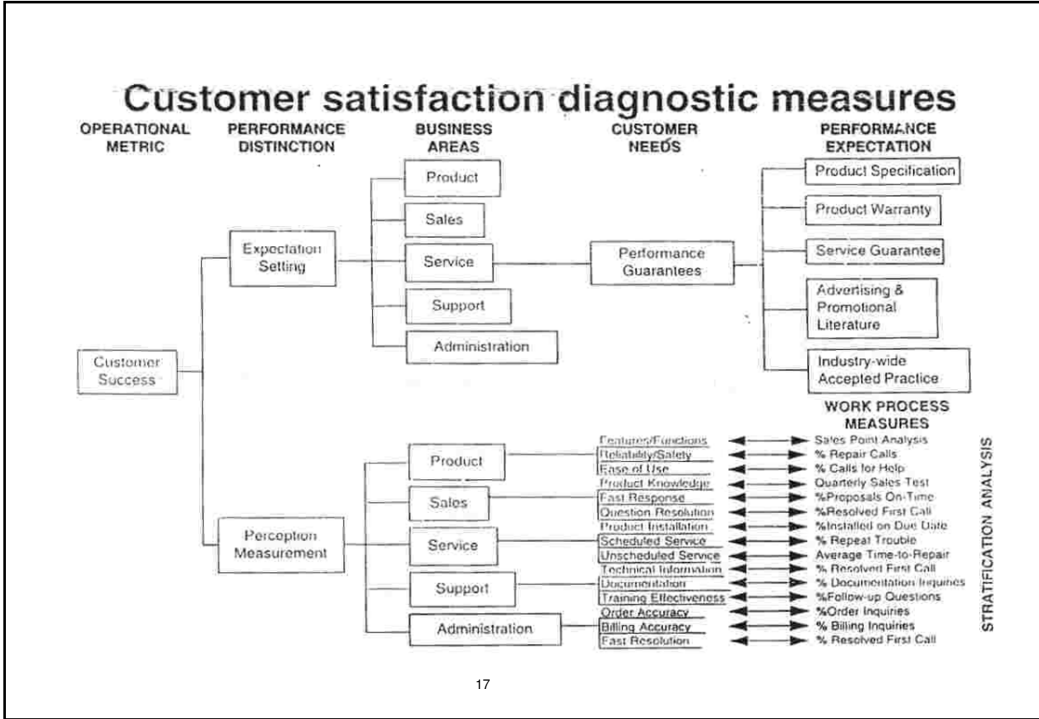
Finance

- **To succeed financially, how should we appear to our shareholders**
- **Financial measures**
    - **Show economic consequences of actions already taken**
    - **Show if strategy, implementation have given results**
- **Typically can be:**
    - **Operating Income**
    - **ROCE**
    - **EVA**

Customer

- **To achieve our vision, how should we appear to our customers**
- **Measures typically can be related to:**
    - **Customer satisfaction**
    - **Customer retention/business expansion with existing**
    - **New customer acquisition**
    - **Value delivery - to customer**
    - **Market and account share in targeted segments**
- **Segment specific drivers could be:**
    - **Shorter lead times**
    - **Innovative products and services**
    - **Better quality**

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Core Measures

```
                    ┌──────────┐
                    │  Market  │
                    │  Share   │
                    └──────────┘
```

```
┌──────────┐      ┌──────────┐      ┌──────────┐
│ Customer │ ───▶ │ Customer │ ───▶ │ Customer │
│Acquisition│     │  Value   │      │Retention │
└──────────┘      └──────────┘      └──────────┘
```

```
┌──────────┐   ┌──────────┐        ┌──────────┐
│Perceived │   │Perceived │        │ Customer │
│ quality  │   │  image   │        │Satisfaction│
└──────────┘   └──────────┘        └──────────┘
```

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Internal Business Processes

Identify the market → Create the Product/ Service Offering → Build the Products/ Services → Deliver the Products/ Services → Service the Customer
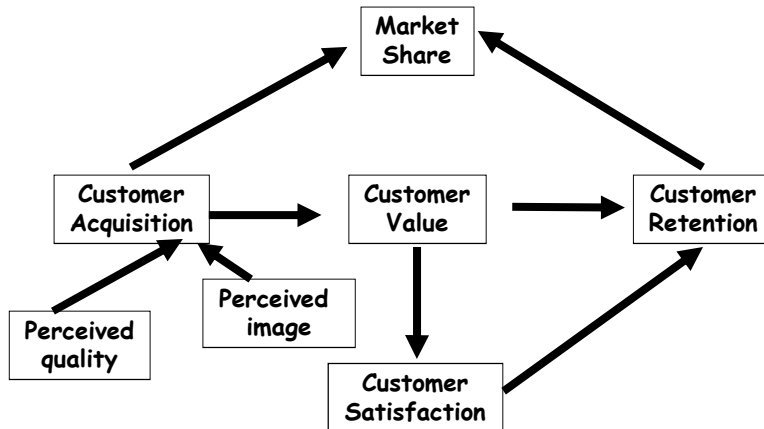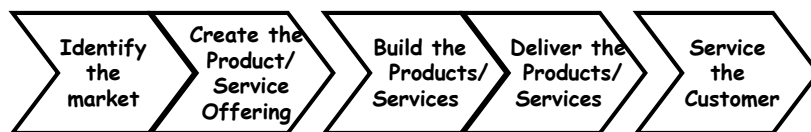
Innovation Process
Basic and Applied Research
•% sales from new products
•Time to market - vs. competitors
•Time to develop next generation products
Product Development
•Break even time
•No of times design modified

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Internal Business Processes

```
Identify        Create the        Build the      Deliver the      Service
the             Product/          Products/      Products/        the
market          Service           Services       Services         Customer
                Offering
```

Operations Process
<u>Standard</u>
•Quality
•Time
•Cost
•Asset utilisation
<u>Additional</u>
•Service Performance
  (accuracy, size, clarity)
•Flexibility

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Internal Business Processes

```
Identify        Create the        Build the      Deliver the      Service
the             Product/          Products/      Products/        the
market          Service           Services       Services         Customer
                Offering
```

Innovation Process
<u>Standard</u>
•Warranty and Repair Activities
•Treatment of defects and returns
•Processing of payments
•QCD
<u>Additional</u>
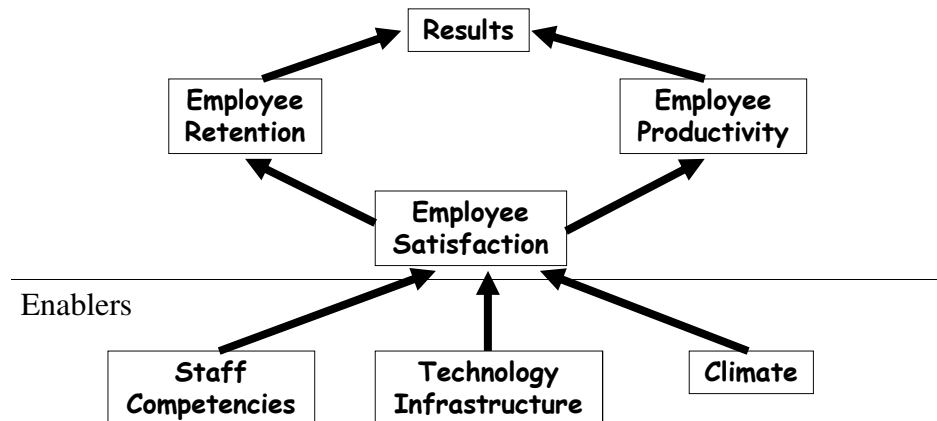•Invoicing and Collections
•Dispute resolution

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Learning and Growth

- **To achieve our vision, how will we sustain our ability to change and improve**
- **The infrastructure that the organisation must build to create long-term growth and improvement**
- **Come from:**
  - **People**
  - **Systems**
  - **Organisational procedures**
- **Measures include**
  - **Employee Satisfaction**
  - **Retention**
  - **Training**
  - **Skills**

Learning & Growth Measurement Framework

Core Measurements

```
                    ┌─────────┐
                    │ Results │
                    └─────────┘
        ┌───────────┐         ┌───────────┐
        │ Employee  │         │ Employee  │
        │ Retention │         │Productivity│
        └───────────┘         └───────────┘
                  ┌──────────────┐
                  │   Employee   │
                  │ Satisfaction │
                  └──────────────┘
```

Enablers

```
┌──────────────┐   ┌────────────────┐   ┌─────────┐
│     Staff    │   │   Technology   │   │ Climate │
│ Competencies │   │ Infrastructure │   └─────────┘
└──────────────┘   └────────────────┘
```

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Measures

- **Employee Satisfaction**
  - **Satisfaction rating**
  - **Suggestions per employee**
  - **Improvement projects implemented/employee**
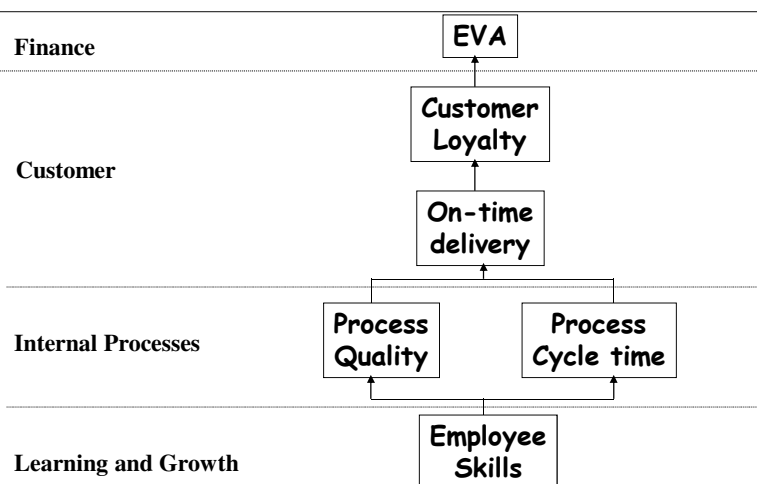- **Employee Productivity**
  - **Revenue per employee**
  - **Value added per employee**
  - **Output produced to employee compensation**
- **Employee skill/competency building**
  - **Skill matrix score**

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Cause / Effect Relationship in scorecard

Finance   EVA

Customer   Customer Loyalty

                                      On-time delivery

Internal Processes   Process Quality   Process Cycle time

Learning and Growth   Employee Skills

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Elements to Measures - Relationships

BSC Element	Strategic Areas	Strat Element	Measures
Finance	Shareholder Value	EVA	EVA
		Profitability	Gross Contribn / Person month
Customer	Customer Loyalty	Retention	Repeat Order Value / Total Value
		Satisfaction	Customer Project Rating
	On-time delivery	On-time delivery	% delay in project milestones
Internal Processes	Process Quality	Bugs	Bugs / Line of code
	Process Cycle time	CMM Score	CMM Score
		Estimation	Function Pt Plan vs Actual
		Utilisation	% Idle time
Learning and Growth	Employee Skills	Skill Matrix	% skills available vs project estimate
			Skill matrix score
		Recruitment	% profile parameters met
			% leaving within six months
		Retention	Average org age

Developing the Scorecard

Vision

Strategic Goals

Key Business Objectives
(Business Plans)

Fin. $$

Cust.

Balanced
Business
Scorecard

Learning

Process

Alignment

Balanced
Business
Scorecard
(BBS)

Linkage

Key
Performance
Indicators
(KPI's)

Key Business Processes
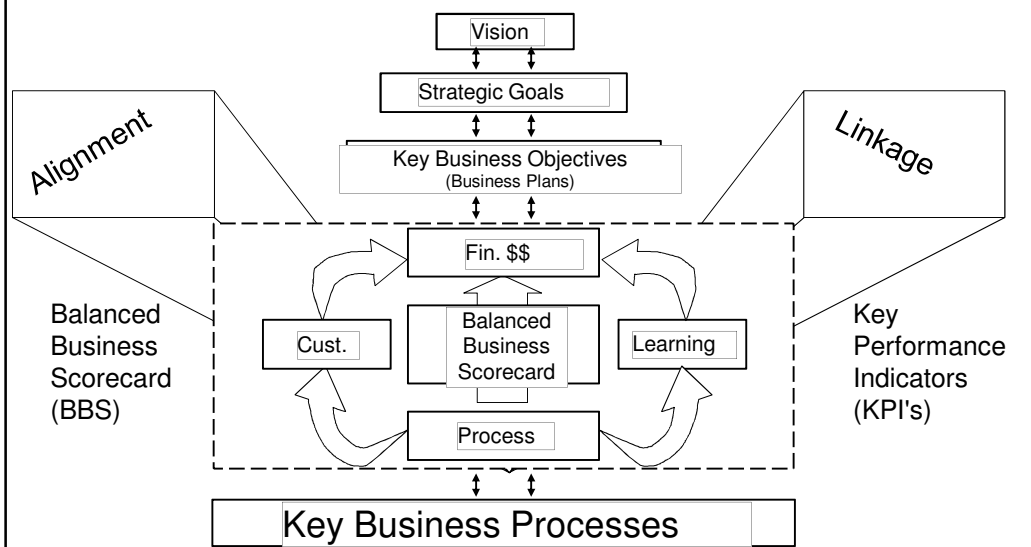
PERFORMANCE MANAGEMENT FEATURES

- **Business case is the collection of choices about how to proceed based upon analysis of scenario options**
- **Critical assumptions are factors that could change the future within the time domain of the planning horizon**
- **Vision is the desired state to be achieved by the plan**
- **Planning horizon is the length of the vision**
- **Strategy is the persistence of vision**
- **Budget is the cost of strategy**

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QUALITY FUNCTION DEPLOYMENT (QFD)

❖ **To establish the critical business issues for the total business or for SBUs, if issues are different for different SBUs.**

❖ **An approach of TREE/MATRIX DIAGRAM based on Quality Function Deployment (QFD) principles could be beneficial in pinpointing the control subjects easily. Control subjects could be SBUs (first iteration), processes (first or second iteration).**
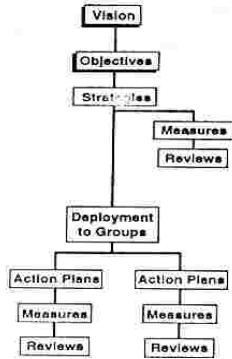
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Using the QFD Process in Business Planning
Partial Matrix Shown

Typical Business Planning Process Conceptual Diagram

- Vision
- Objectives
- Strategies
  - Measures
  - Reviews
- Deployment to Groups
  - Action Plans
    - Measures
    - Reviews
  - Action Plans
    - Measures
    - Reviews

OBJECTIVES

VISION	Importance	1. Improve product qual/rel.	2. Improve customer service	3. Improve/refine 7 stage process	4. Increase on-site education
A. Leader in customer satisfaction		◎	◎		
B. Strengthen employee developm't				◎	
C. Continual improvem't product		○		◎	○
D. Process driven		◎		◎	
				◎	
					◎
Column priority					

Relationship symbols
◎ Strong
○ Moderate
△ Weak

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Using the QFD Process in Business Planning
Partial Matrix Shown

Typical Business Planning Process Conceptual Diagram

- Vision
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    - Measures
    - Reviews
  - Action Plans
    - Measures
    - Reviews

STRATEGIES

OBJECTIVES	Importance	1. Reduce faults/1000	2. Increase MTBF	3. Add exciting quality	4. Incr. service response	5. Create 7 stage	6. Develop on-site curriculum
A. Improve product qual/rel.		◎	◎	◎			○
B. Improve customer service			○		◎		
C. Improve/refine 7 stage process						◎	
D. Increase on-site education							◎
							○
Column priority						△	

TARGETS-MEASURES		5/1000	10%-top 5 prod	no features/yr	24 hrs-top 5 prd	by mid year	by mid year

Relationship symbols
◎ Strong
○ Moderate
△ Weak

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CRITICAL BUSINESS ISSUES

Critical Business Issue	Divisions				
	SBU 1	SBU 2	SBU 3	SBU 4	SBU 5
1. Cost of quality	Θ	Θ	O	Θ	Θ
2. On time delivery (OTD)	Δ	Δ	Θ	Δ	--
3. Response to customer call	Θ	Θ	--	O	Θ
4. Price of product	O	O	--	Θ	Θ
5. Market share/Sales growth	Θ	O	O	--	Δ
6. No. of customer complaints	O	Θ	Δ	Θ	--
7. On time execution	--	--	Θ	--	O
8. Operating profit	--	Δ	O	Δ	O
SCORE	34	35	28	32	34

Θ: Very strong relationship (9) O: Strong (3)
Δ: Weak relationship (1) --: No relationship (0)

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CRITICAL BUSINESS ISSUES TO CRITICAL PROCESSES FOR SBU 1

Critical Business Issue	Score	Critical Processes				
		Sales	Engg.	Procu.	Mfg.	R & D
1. Cost of quality	9		Θ	O		
2. On time delivery (OTD)	1		Δ		Θ	Θ
3. Response to customer call	9	O			Δ	Δ
4. Price of product	3		Δ		Θ	
5. Market share/Sales growth	9		O	Θ	Δ	Δ
6. No. of customer complaints	3	Δ	Θ		Θ	O
SCORE		30	139	108	81	54

Θ: Very strong relationship (9) O: Strong (3)
Δ: Weak relationship (1) --: No relationship (0)

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Implementing the scorecard

- **Develop vision**

- **Establish key objectives and strategies**

- **Evaluate current measures for suitability in**

  - **reflecting the strategic intent, Critical Success Factors**

  - **reflecting the four quadrants of the BBS**

  - **reflecting a combination of leading and lagging indicators**

Implementing the scorecard

- **Establish the first-cut BBS with CEO**

  - **Identify key functions, processes that drive the measures**

- **Establish next-level BBS for key functions, processes**

- **Integrate the measures**

  - **with MIS report**

  - **with KPIs and Performance Appraisal Process**

- **Deploy and assess**

Six Sigma and Balanced Scorecard

An approach that combines the targeted performance indicators of a Balanced Scorecard with the statistical rigor of Six Sigma can be used to effectively focus an organization on the achievement of strategic goals – in essence, creating the ultimate "management cockpit."

Adopting this structured approach to planning, managing and monitoring improvement brings cohesion to conflicting constituencies and builds confidence in proposed process improvements.

In turn, this confidence can have a measurable impact on the organization by accelerating the implementation of change, often viewed as a delicate balance between cost, quality and efficiency.

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Six Sigma and Balanced Scorecard

. •One of the crucial elements of the project charter in the define phase of a Six Sigma project is the selection of project metrics.

•Project metrics selected should reflect the voice of the customer (customer needs), as well as ensure that the internal metrics selected by the organization are achieved.

•Metrics selected should be simple and straightforward and meaningful. Metrics selected should create a common language among diverse team members.

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Developing Project Metrics

The most common approach used by teams is to understand the problem statement, brainstorm metrics, and finally decide what metrics can help them achieve better performance.

The team then reviews these metrics with executive management to ensure that they are in synergy with the overall strategy of the business, and an iterative approach may be utilized.

Care should be exercised in determining what is measured.

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Balanced Scorecard Approach To Metrics

•Many Six Sigma professionals advocate the use of a Balanced Scorecard type of approach for the selection of project metrics as a method for ensuring that the project meets both customer and business needs.

•The Balanced Scorecard approach includes both financial and non-financial metrics, as well as lagging and leading measures across the four areas or perspectives: Financial, Customer, Internal Processes, and Employee Learning and Growth.

•Lagging measures are those that are measured at the end of an event, while leading measures are measures that help as achieve the objectives and are measured upstream of the event.

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Example Project Balanced Scorecard

Financial	Internal Business Processes
	Defects, Inspection Data, DPMO, Sigma
Inventory Levels	Level
Cost Per Unit	Rolled Throughput Yield
Hidden Factory	Supplier Quality
Activity Based Costing	Cycle Time
Cost Of Poor Quality	Volume Shipped
	Rework Hours
Customer	Employee Learning and Growth
Overall Project Savings	Six Sigma Tool Utilization
Customer Satisfaction	Quality of Training
On Time Delivery	Meeting Effectiveness
Final Product Quality	Lessons Learned
Safety Communications	Total Trained in Six Sigma
	Project Schedule Versus Actual Date
	Number of Projects Completed
	Total Savings To Date

Most Balanced Scorecard metrics are based on brainstorming, however the approach of brainstorming can have limited success in establishing sound metrics that have a good balance between lagging and leading measures

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Financial · Customer · Internal · Learning & Growth strategy map

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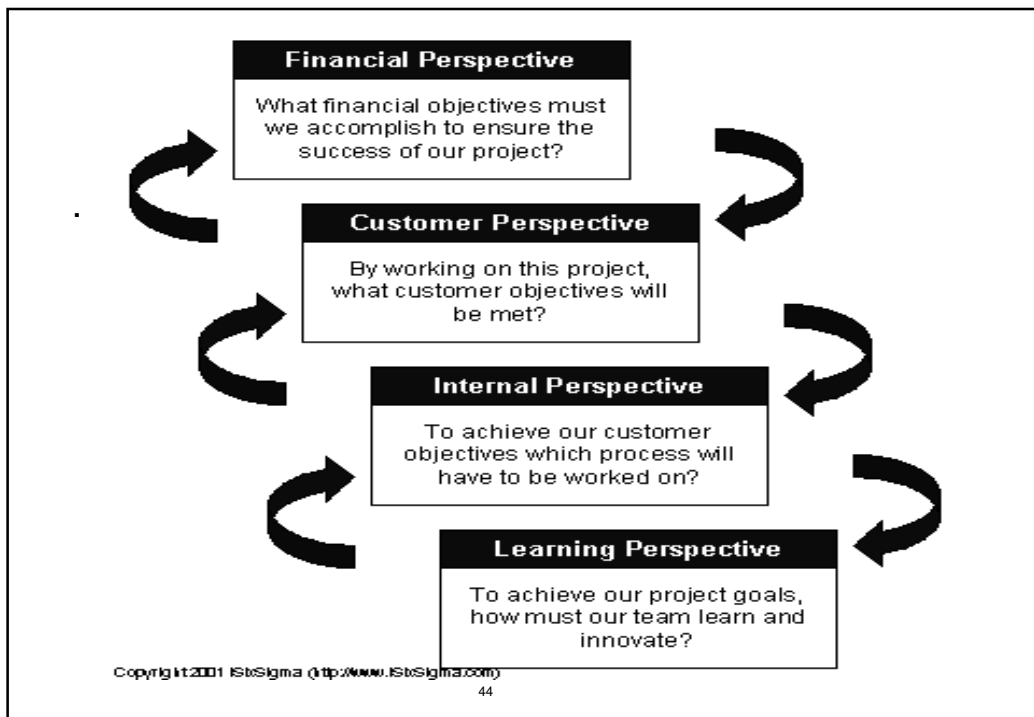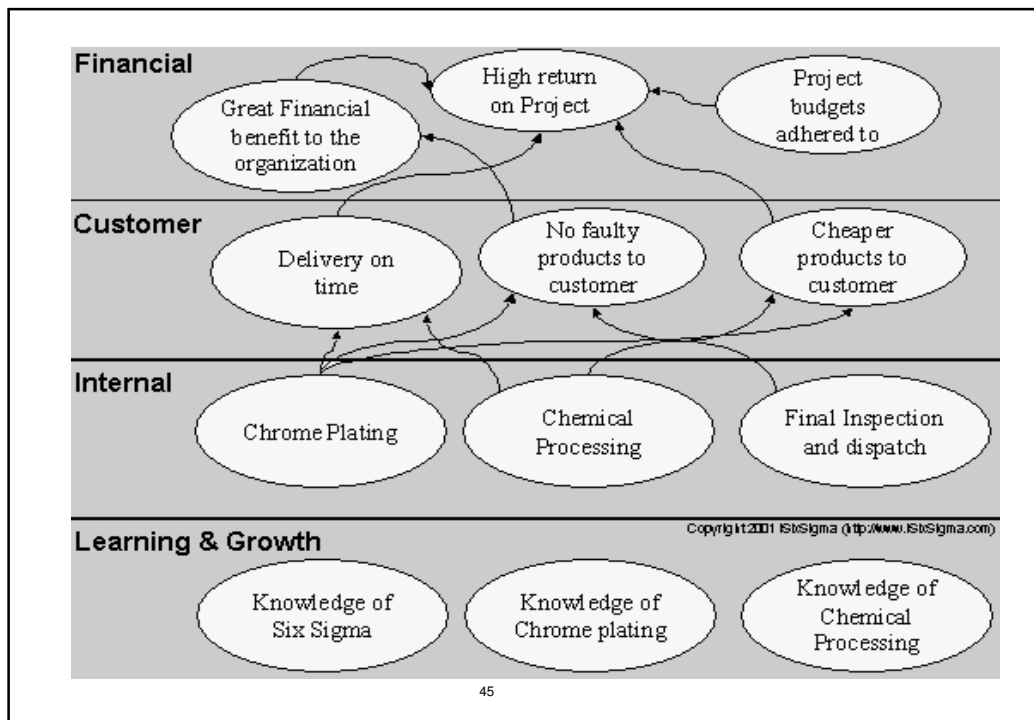
Once the strategy map for the project is determined, the team can begin brainstorming appropriate metrics for each of the objectives and, while doing so, maintain a balance in selection between leading and lagging measures.

This kind of an approach ensures that the team selects a set of metrics that are aligned with the strategy used by them on the Six Sigma Project.

Metrics selected in this way not only ensure that appropriate metrics are developed but also help the team in the project planning and creates a purpose of direction for the team

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In Conclusion

The Balanced Scorecard
is a management system

used to
focus and prioritize management energy

toward achieving
both short and long term organizational goals

and with the ability to give
early warning signals for midcourse correction

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THANK YOU

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