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.**

⇨ **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.**

Presentation covers

- **Need for a balanced business scorecard**

- **What is a balanced scorecard**

- **How to build and implement a balanced scorecard**

The importance of a management system

Vision and Strategy

Management System

Fundamentals Projects Initiatives
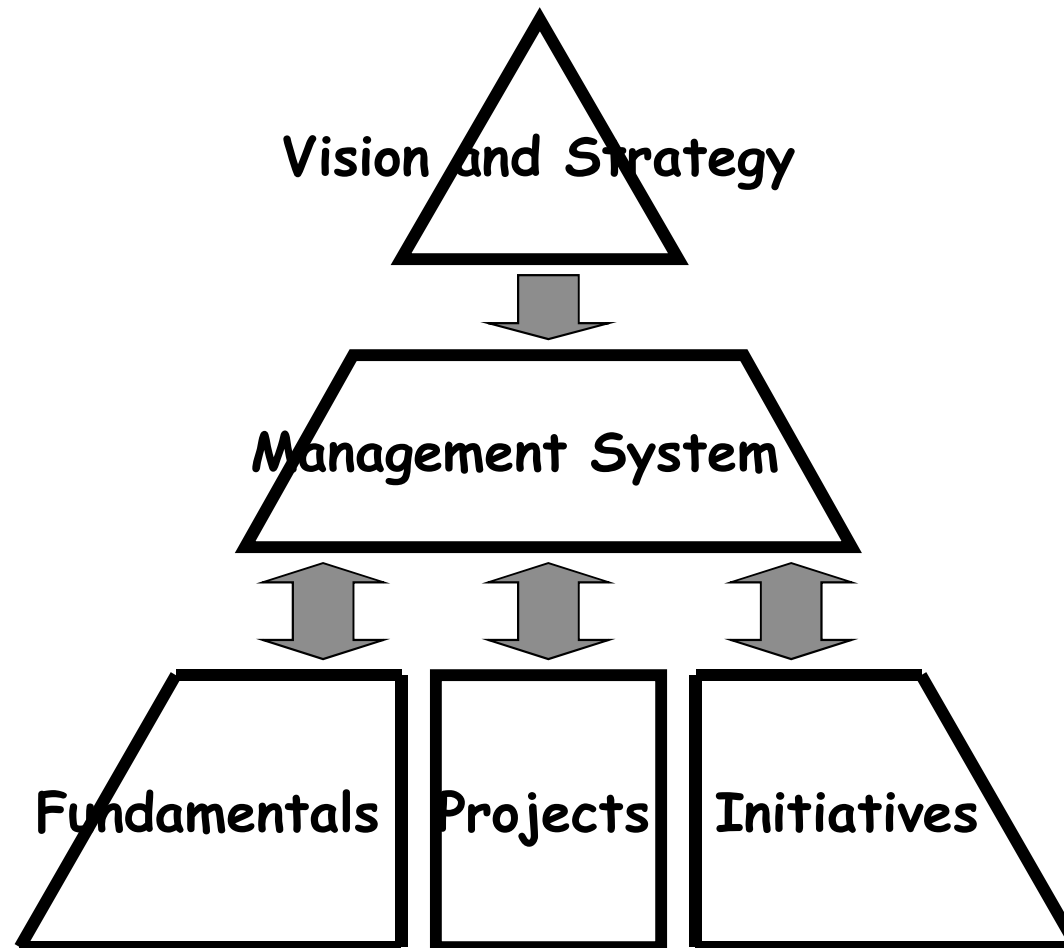
TAKING OFF THE BLINDERS...

" **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

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**

Advantages

Balanced Scorecard because:

financial and ...

external and ...

outcomes and ...

quantitative and ...

nonfinancial indicators

internal measures

performance drivers

qualitative factors
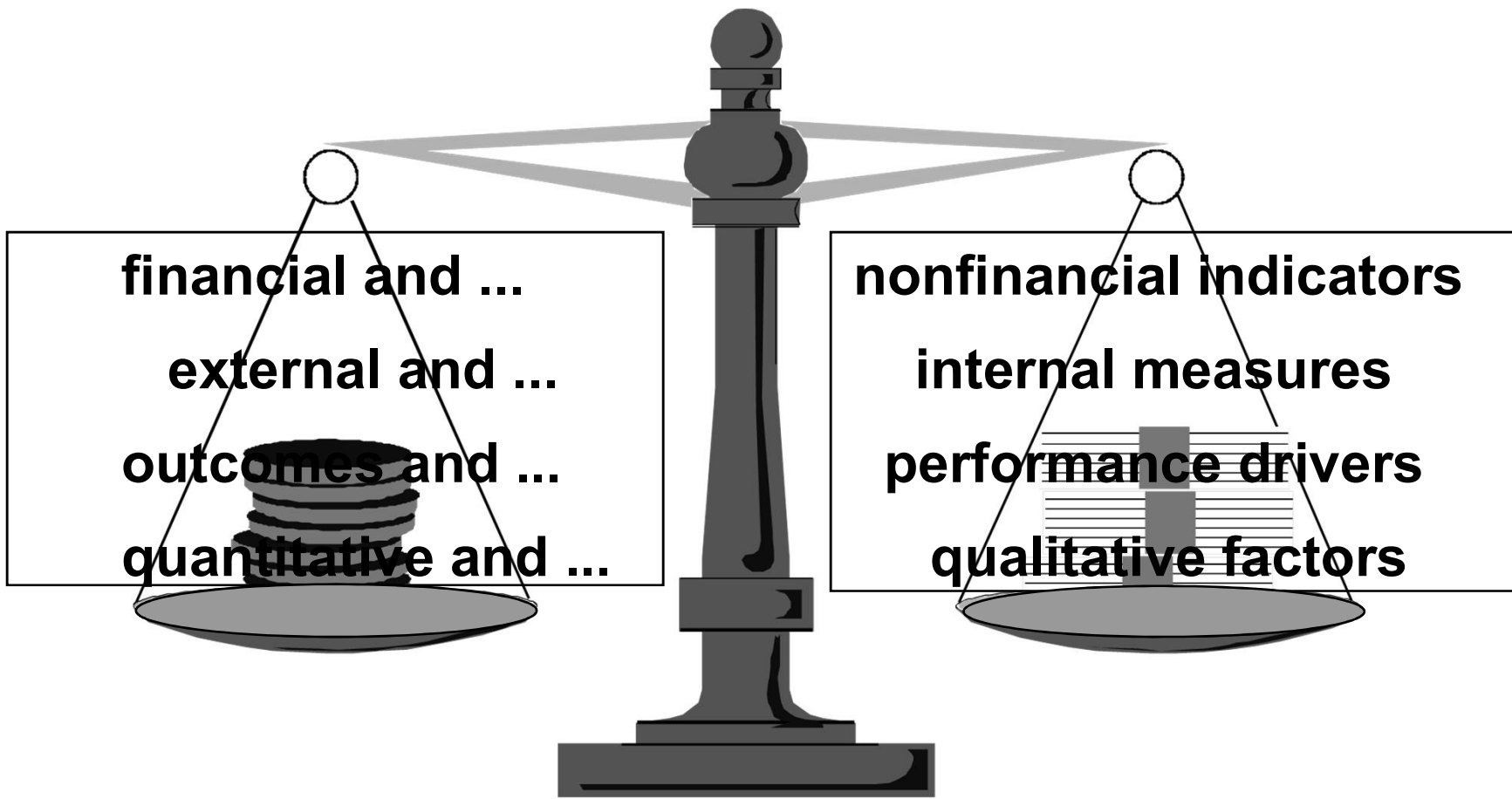
Genesis of Balanced Scorecard

- **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**

Financial

"To succeed financially, how should we appear to our shareholders?"

Objectives	Measures	Targets	Initiatives

Customer
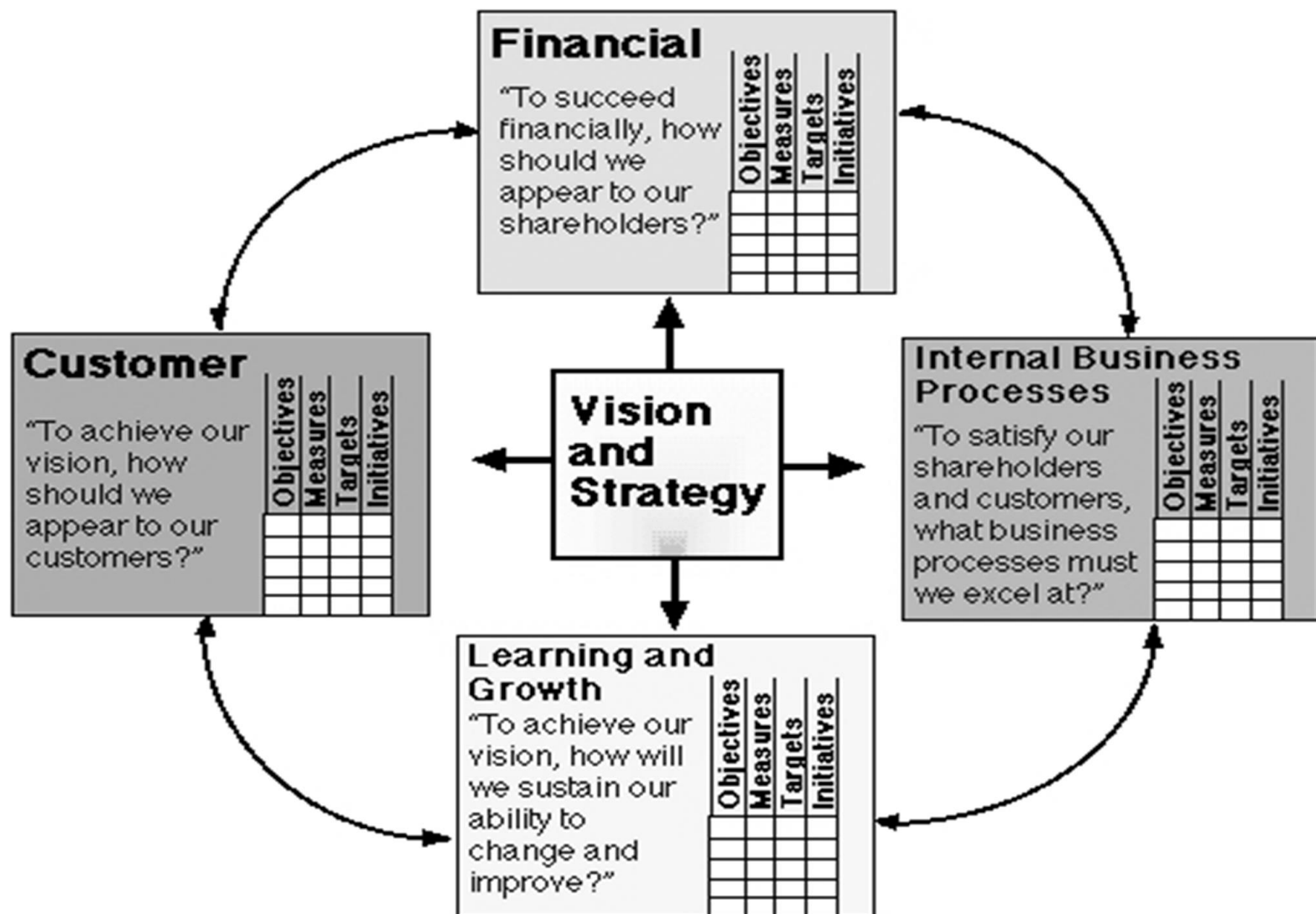
"To achieve our vision, how should we appear to our customers?"

Objectives	Measures	Targets	Initiatives

Vision and Strategy

Internal Business Processes

"To satisfy our shareholders and customers, what business processes must we excel at?"

Objectives	Measures	Targets	Initiatives

Learning and Growth

"To achieve our vision, how will we sustain our ability to change and improve?"

Objectives	Measures	Targets	Initiatives

•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.

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

Return on net assets diagnostic measures

METRIC | PERFORMANCE DISTINCTION | FUNCTIONAL MEASUREMENTS

STRATIFICATION ANALYSIS

Return on Net Assets

- Return
  - Sales
  - Service
  - Supplies
  - Support
  - Passive Returns
- Assets
  - Inventory
  - Equipment
  - Real Estate
  - Receivables
  - Cash
  - Investments

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Operating profit diagnostic measures

Customer satisfaction diagnostic measures

OPERATIONAL METRIC	PERFORMANCE DISTINCTION	BUSINESS AREAS	CUSTOMER NEEDS	PERFORMANCE EXPECTATION

Business Areas (Expectation Setting): Product, Sales, Service, Support, Administration

Customer Needs: Performance Guarantees

Performance Expectation:
- Product Specification
- Product Warranty
- Service Guarantee
- Advertising & Promotional Literature
- Industry-wide Accepted Practice

Operational Metric: Customer Success

Performance Distinction: Expectation Setting, Perception Measurement

WORK PROCESS MEASURES

Business Areas (Perception Measurement): Product, Sales, Service, Support, Administration

Customer Needs	Work Process Measures
Features/Functions	Sales Point Analysis
Reliability/Safety	% Repair Calls
Ease of Use	% Calls for Help
Product Knowledge	Quarterly Sales Test
Fast Response	%Proposals On-Time
Question Resolution	%Resolved First Call
Product Installation	%Installed on Due Date
Scheduled Service	% Repeat Trouble
Unscheduled Service	Average Time-to-Repair
Technical Information	% Resolved First Call
Documentation	% Documentation Inquiries
Training Effectiveness	%Follow-up Questions
Order Accuracy	%Order Inquiries
Billing Accuracy	% Billing Inquiries
Fast Resolution	% Resolved First Call

STRATIFICATION ANALYSIS

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Employee satisfaction diagnostic measures

OPERATIONAL METRIC	PERFORMANCE DISTINCTION	BUSINESS AREAS	EMPLOYEE NEEDS	PERFORMANCE EXPECTATION

Expectation Setting branch:

Business Areas:
- Business Environment
- Company Culture
- Quality of Life
- Competence Development

Employee Needs:
- Employment Guidelines

Performance Expectation:
- Benefit & Compensation System
- Decision Making, Participation, & Empowerment
- Community & Personal Services
- Skills and Competency Assessment

Employee Satisfaction

QUALITY OF WORK MEASURES

Perception Measurement branch:

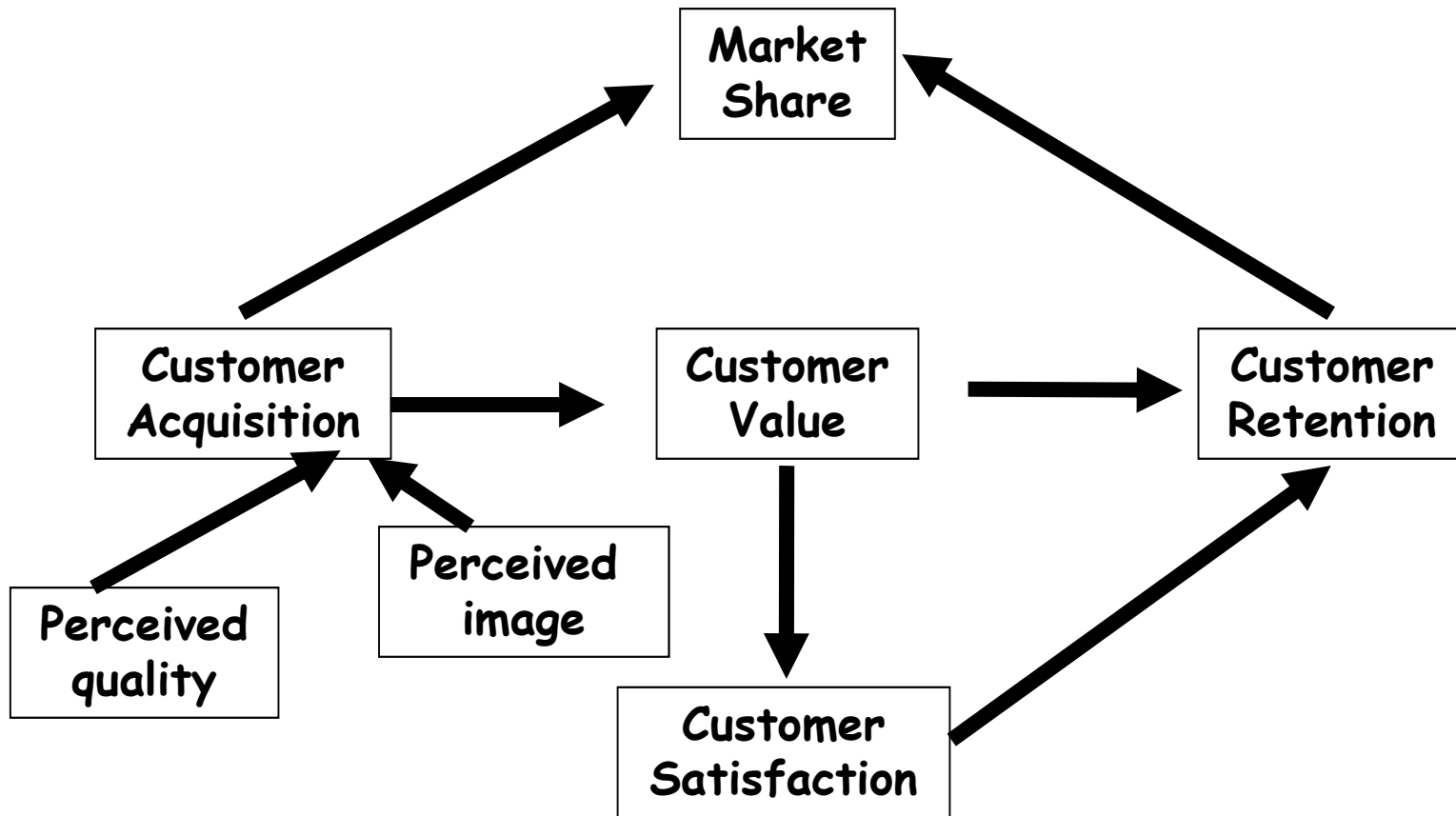| Business Areas	Employee Needs	Quality of Work Measures
Business Environment	Stable Employment	Turnover Rate
	Fair Compensation	Industry Salary Index
	Adequate Benefits	Industry Benefits Index
Company Culture	Problem Resolution	Grievance Resolution Time
	Participative Environment	Employee Involvement Index
	Performance Feedback	% Timely Evaluations
Quality of Life	Safe Environment	Occupational Safety Rate
	Community Responsibility	Community Involvement Index
	Family Stability	% Employee Claims
Competence Development	Personal Development	Employee Training Level
	Skills Development	Job Preparation Index
	Recognition Opportunity	Recognition Level

STRATIFICATION ANALYSIS

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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:**

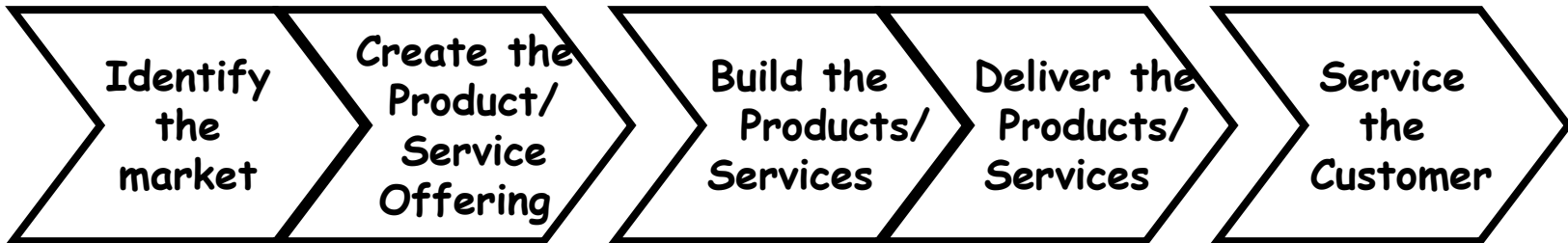 - **Operating Income**

  - **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**

Core Measures

Market Share

Customer Acquisition → Customer Value → Customer Retention

Perceived quality → Customer Acquisition

Perceived image → Customer Acquisition

Customer Value → Customer Satisfaction → Customer Retention

Internal Business Processes

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

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
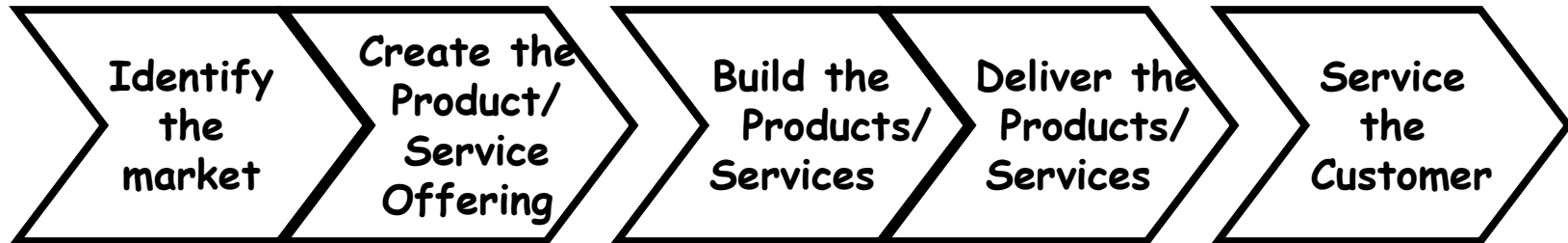
Internal Business Processes

Identify the market → Create the Product/Service Offering → Build the Products/Services → Deliver the Products/Services → Service the Customer
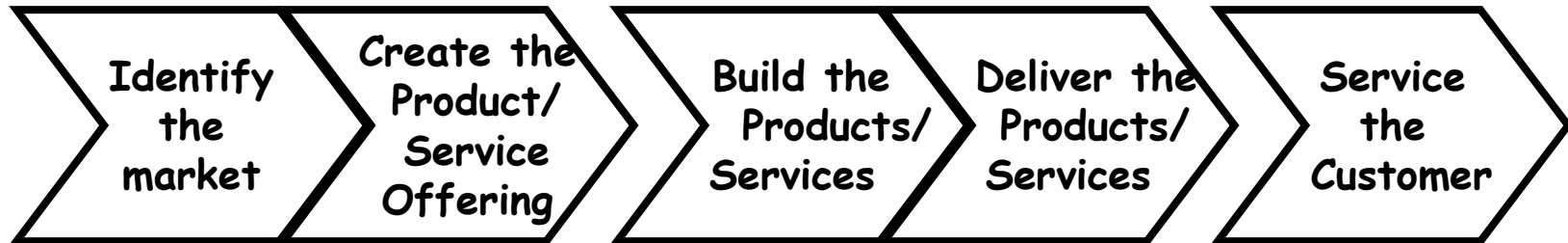
Operations Process

<u>Standard</u>
- Quality
- Time
- Cost
- Asset utilisation

<u>Additional</u>
- Service Performance (accuracy, size, clarity)
- Flexibility

Internal Business Processes

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

Customer Service Process

Standard
- Warranty and Repair Activities
- Treatment of defects and returns
- Processing of payments
- QCD

Additional
- Invoicing and Collections
- Dispute resolution

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

Enablers
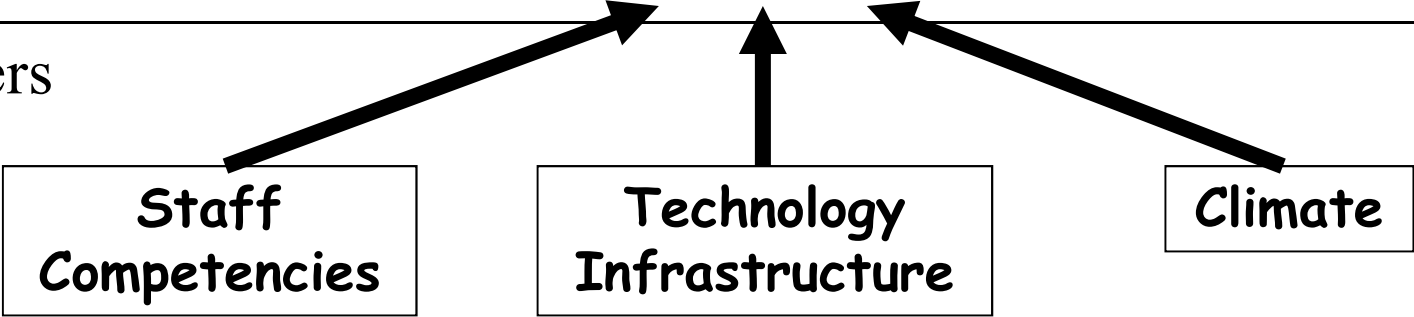
Measures

- **Employee Satisfaction**

  - **Satisfaction rating**

  - **Suggestions per employee**

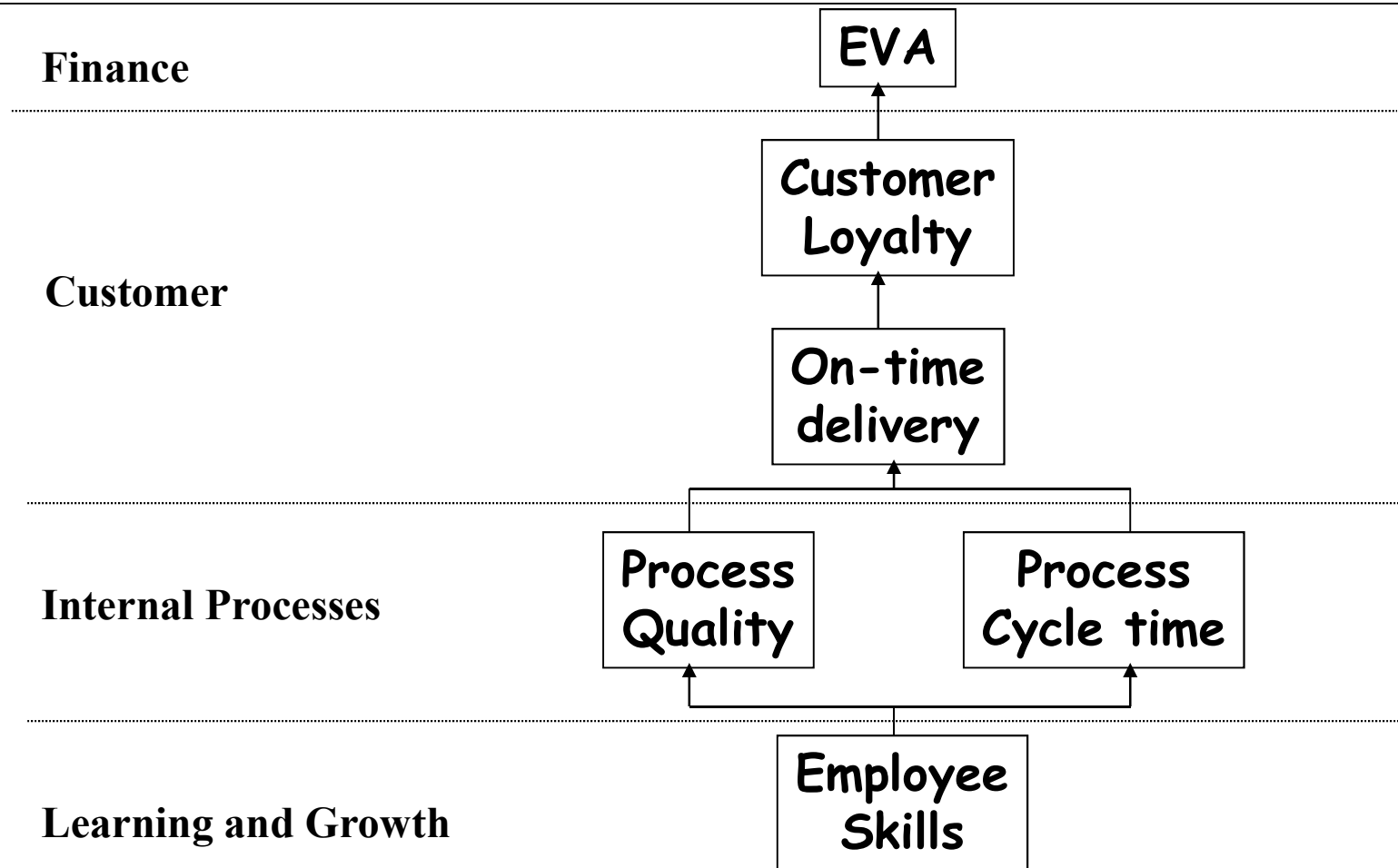 - **Improvement projects implemented/employee**

- **Employee Productivity**

  - **Revenue per employee**

  - **Value added per employee**

  - **Output produced to employee compensation**

- **Employee skill/competency building**
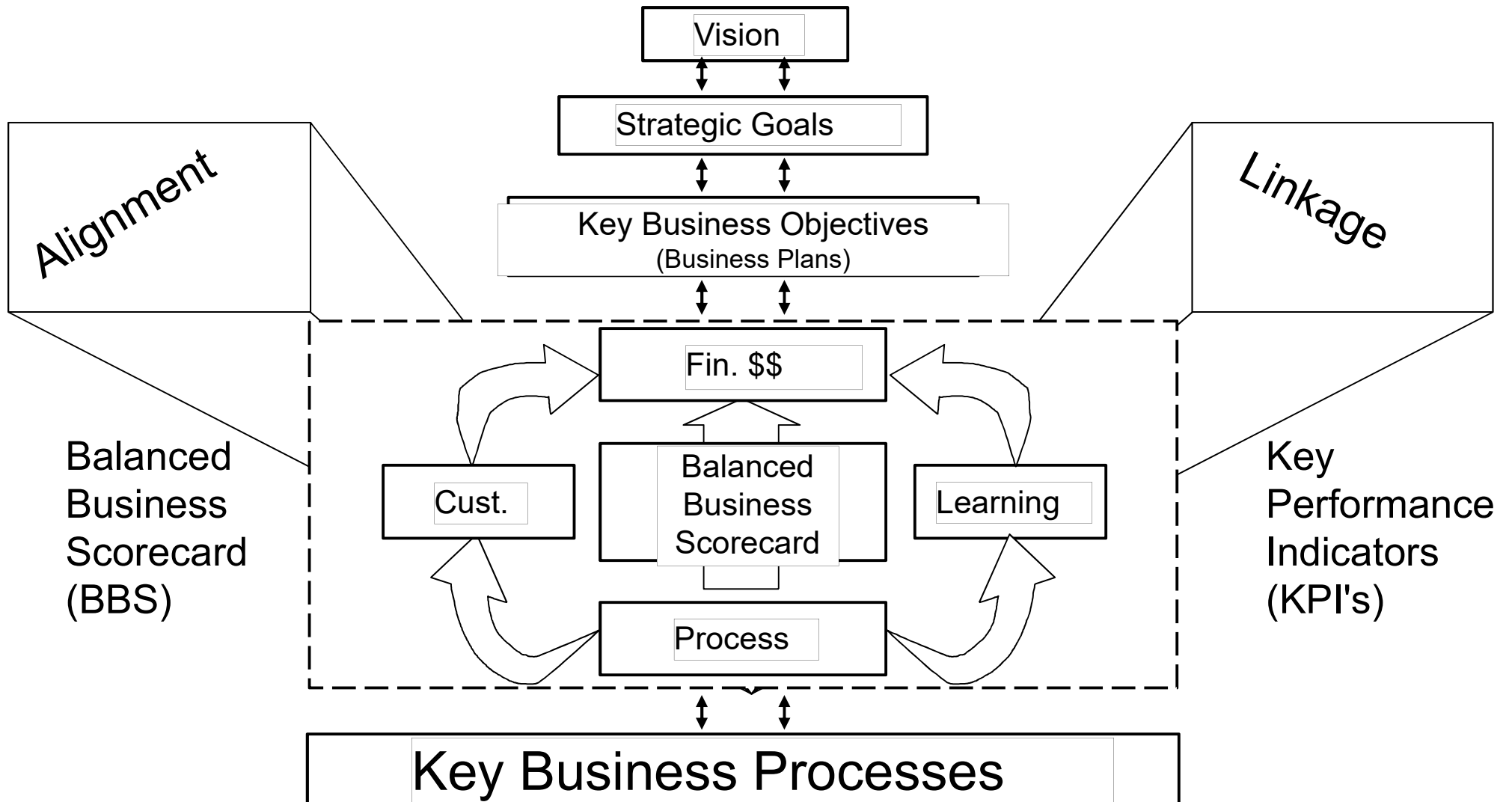
  - **Skill matrix score**

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)

Alignment

Linkage

Fin. $$

Cust.

Balanced
Business
Scorecard

Learning

Process

Balanced
Business
Scorecard
(BBS)

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**

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).**

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 / Action Plans
↓
Measures / Measures
↓
Reviews / Reviews

VISION	Importance	1. Improve product qual/rel.	2. Improve customer service	3. Improve/refine 7 stage process	4. Increase on-site education		
				OBJECTIVES			
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  │
                    └─────────┘
                         │
                   ┌────────────┐
                   │ Objectives │
                   └────────────┘
                         │
                   ┌────────────┐
                   │ Strategies │
                   └────────────┘
                         │
                      ┌──────────┐
                      │ Measures │
                      └──────────┘
                      ┌──────────┐
                      │ Reviews  │
                      └──────────┘
                         │
                  ┌────────────┐
                  │ Deployment │
                  │ to Groups  │
                  └────────────┘
                    │        │
          ┌──────────────┐ ┌──────────────┐
          │ Action Plans │ │ Action Plans │
          └──────────────┘ └──────────────┘
          ┌──────────┐     ┌──────────┐
          │ Measures │     │ Measures │
          └──────────┘     └──────────┘
          ┌──────────┐     ┌──────────┐
          │ Reviews  │     │ 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)

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)**

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.

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.

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.

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.

Example Project Balanced Scorecard

Financial

Inventory Levels
Cost Per Unit
Hidden Factory
Activity Based Costing
Cost Of Poor Quality

Internal Business Processes
Defects, Inspection Data, DPMO, Sigma
Level
Rolled Throughput Yield
Supplier Quality
Cycle Time
Volume Shipped
Rework Hours

Customer
Overall Project Savings
Customer Satisfaction
On Time Delivery
Final Product Quality
Safety Communications

Employee Learning and Growth
Six Sigma Tool Utilization
Quality of Training
Meeting Effectiveness
Lessons Learned
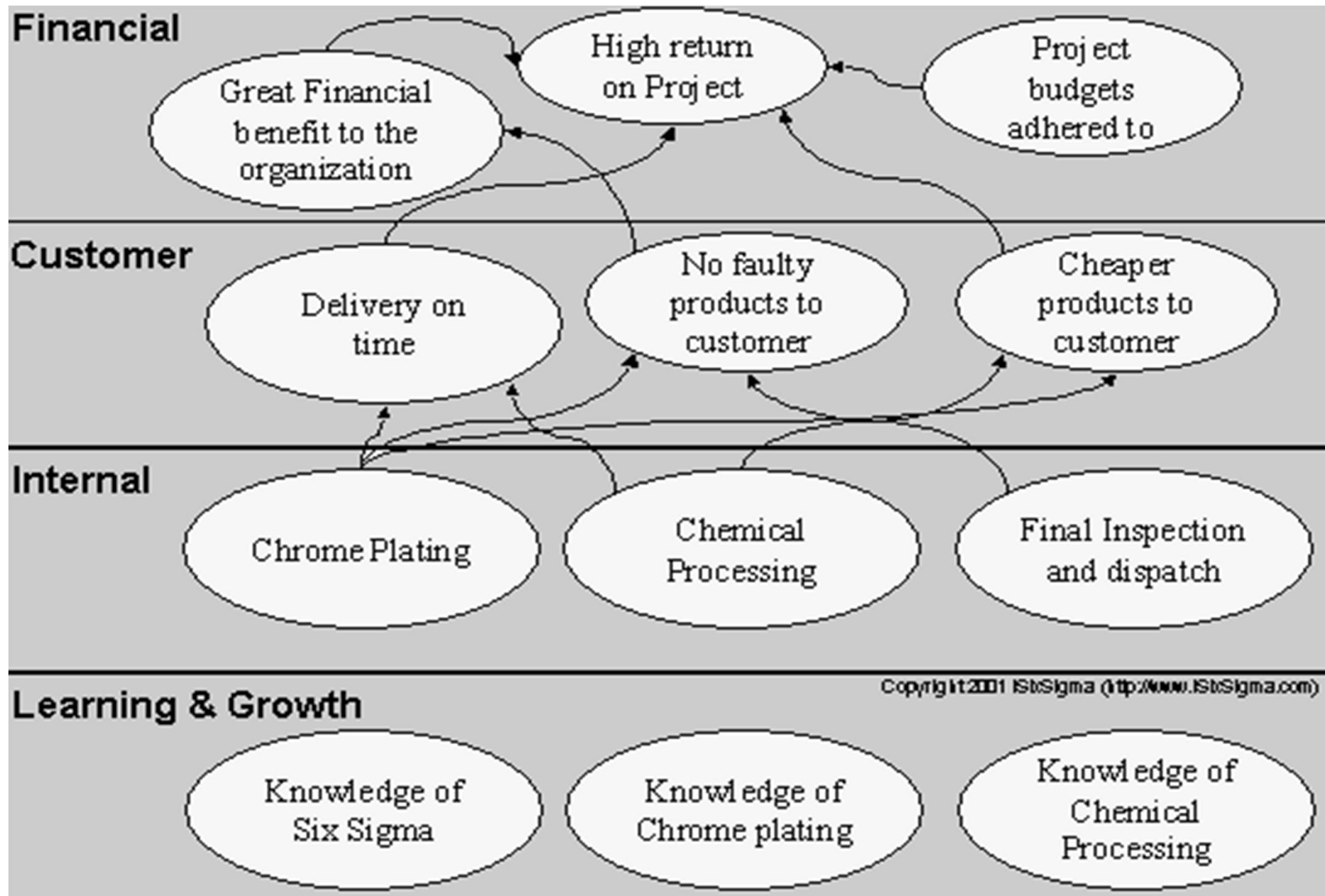**Total Trained in Six Sigma**
Project Schedule Versus Actual Date
Number of Projects Completed
Total Savings To Date

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

Financial Perspective

What financial objectives must we accomplish to ensure the success of our project?

Customer Perspective

By working on this project, what customer objectives will be met?

Internal Perspective

To achieve our customer objectives which process will have to be worked on?

Learning Perspective

To achieve our project goals, how must our team learn and innovate?

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Financial

Great Financial benefit to the organization

High return on Project

Project budgets adhered to

Customer

Delivery on time

No faulty products to customer

Cheaper products to customer

Internal

Chrome Plating

Chemical Processing

Final Inspection and dispatch

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Learning & Growth

Knowledge of Six Sigma

Knowledge of Chrome plating

Knowledge of Chemical Processing

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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

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

THANK YOU

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