

An Empirical Generic Balanced Score Card Framework for Infrastructural Performance Measurement of a Firm

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Abstract

The Balanced Scorecard is a management system, not only a measurement system that enables organizations to clarify their vision & strategy and translate them into action. It provides feedback around both the external outcomes & internal business processes in order to continuously improve strategic performance & results. The balanced scorecard transforms strategic planning from an academic exercise into the nerve center of an enterprise, when it fully deployed. My purpose of research is to provide a whole sole framework regarding balanced scorecard implementation that is necessary to evaluate the past performance of an organisation & to provide the actual status of an organisation to the top management and consultants. A matrix would be prepared for the analysis having all the parameters regarding strategic objectives, measurements, targets and programmes attributes. After that a generic model would be developed to rate all the factors regarding financial, customer, learning and growth, internal processes perspective.

Keywords: Balanced Scorecard, Strategic Evaluation, Past Performance Indicator, Outcome Measurement

INTRODUCTION

The balanced scorecard methodology builds on some key concepts of previous management ideas such as continuous improvement, Total Quality Management, including customer-defined quality, employee empowerment, and--primarily--measurement-based management and feedback.

A Good Balanced Scorecard tells the Organization:

- x Every measure is part of a chain of cause and effect linkages.
- x All measures link to the organizational outcomes eventually.

- A balance exists between outcome measures (customer & financial) and performance drivers (internal processes, value proposition, learning & growth).

THE FINANCIAL PERSPECTIVE

Kaplan makes the case that organizations today are hung up on financial metrics created 75 years ago to track industrial corporations. These metrics are fine for their purpose but that purpose does not extend to the new information needs of organizations.

THE CUSTOMERS PERSPECTIVE

- *Operational Excellence*: describes those companies that deliver a combination of quality, price, and ease of purchase no one else can match. Examples: McDonalds, Costco, Dell.
- *Product Leadership*: companies defined by product innovation. Examples: Johnson & Johnson, Sony, Intel.
- *Customer Intimacy*: companies that build relationships with customers. Examples: IBM, Home Depot.

PROCESS PERSPECTIVE

Business processes are strategic in nature, Kaplan said, but we often fail to treat them that way. A technology, does not advance a value proposition is a technology that your organization might best leave alone.

- Operational excellence companies need to focus on operations processes: customer service, supply chain management & demand management.
- Product leadership companies must commit to innovation processes: product development, invention and getting those products to market as rapidly as possible.
- Customer intimacy companies need to attend to the customer management process: relationship management, solution development, results management and advisory services.

LEARNING & GROWTH

The final area that the Balanced Scorecard provides guidance with is learning, adapting, and growing, what Kaplan calls "organizational infrastructure."

This paper is providing a whole sole framework regarding balanced scorecard implementation that is necessary to evaluate the past performance of an organisation & to provide the actual status of an organisation to the top management and consultants.

There are following steps regarding the framework of strategic implementation of balanced scorecard in an organisation or industry.

STEP 1: PREPARATION OF PROCESS INPUT CHECKLIST

Process input checklist consist the basic checklist of strategic information you need to collect like company related information as Current Strategic Plan(s), Current Financial Plan(s), Current Operating Plan(s), Current Marketing Plan(s), Annual Reports, Interviews with Executive Management, Quality Improvement Programs, Customer Analysis etc. another checklist consists the Industry Related Information as Competitive Analysis, Technology Trend Analysis, Industry Trend Analysis, Marketing Trend Analysis etc.

Process Input Checklist
Company Related Information Sources: Current Strategic Plan(s) Current Financial Plan(s) Current Marketing Plan(s) Current Operating Plan(s) Annual Reports Quality Improvement Programs Customer Analysis Interviews with Executive Management Other Planning Documents: _____ Other Planning Documents: _____ Other Planning Documents: _____ Other Planning Documents: _____
Industry Related Information Sources: Competitive Analysis Industry Trend Analysis Technology Trend Analysis Marketing Trend Analysis Other Industry Analysis: _____ Other Industry Analysis: _____ Other Industry Analysis: _____ Other Industry Analysis: _____

This is the first step regarding the collection of data for balanced scorecard implementation within an industry or organisation. It's a basic checklist regarding the collection of strategic information needed for an organisation or industry.

STEP 2: PREPARATION OF DEVELOPMENT TIMELINE AND TEAM FORMATION CHECKLIST

Second step consist the preparation of development timeline having timeline for Six Step Development Process and preparation of team formation checklist having basic checklist to follow in forming three team approaches. The six step development process would take at least 12 weeks. Once completed, the next step is to cascade out the Balanced Scorecard to the other parts of the organization based on the Implementation Plan. There are three different types of teams that are used within the process:

Leadership Team

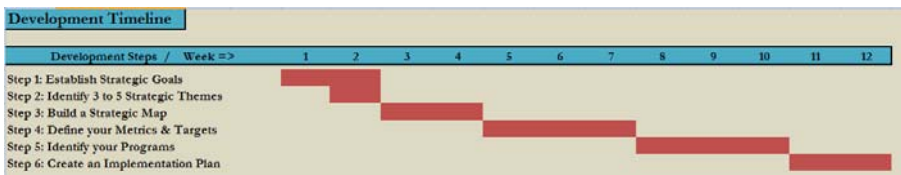
Used to understand & articulate strategy and strongly supports the Scorecard.

Core Team

It is the most important team since here is where most of the hard work takes place like Collect and apply data, build maps, document the process, etc.

Measurement Team

These are the Lower level personnel who have detail understandings about measurement.



Team Formation Checklist

Leadership Team (Upper level management):

- Team member is a strategic thinker and understands the overall business.
- Team member is a major supporter of the Balanced Scorecard (visible to everyone).
- Team member is very supportive of others involved in the process (takes ownership).
- Team member is effective at communicating strategy to others.
- Team member is well qualified to make decisions regarding themes, objectives, etc.

Core Team (Middle level management):

- Team member has a good overall understanding of the business.
- Team member has good skills at interviewing and extracting "big picture" information
- Team member has high credibility and respect with other Managers.
- Team member works well with upper level management.
- Team member has good skills at documenting and presenting strategic results.
- The Core Team is the primary team for building the Balanced Scorecard. The Core Team will be collecting and gathering information from a series of interviews with the Leadership Team.

Measurement Team (Lower level personnel):

- Team member has a very detail understanding of the functional area.
- Team member can gather and analyze detail data for clear communication to others.
- Team member can comprehend strategic issues and connect the issue to his/her job.
- Team member works well with middle level management.

STEP 3: ESTABLISHMENT OF STRATEGIC GOALS AND PREPARATION OF STRATEGIC THEMES CHECKLIST

Third step would consist the establishment of strategic goals for listing the strategic goals and preparation of Strategic Themes Checklist to test that you have a good set of strategic themes.

The establishment of Strategic Goals would consist the criteria menu like marketplace, Industry Trends, Technology, Competition, Past Performance etc. based upon this criteria menu for defining the goals for example Past Performance we would define the goal like we would increase the revenue by 30% over the next two years.

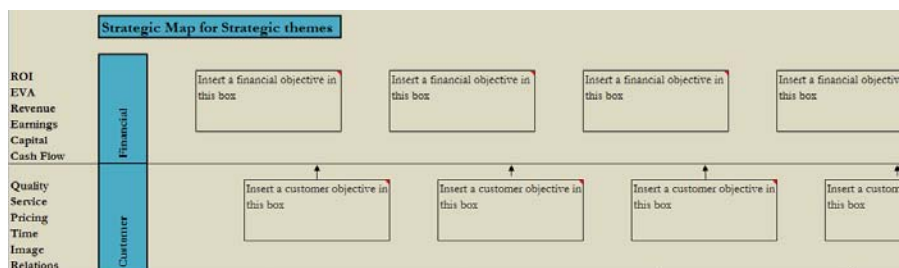
After that we would decide upon preparation of Strategic Themes based upon the following Strategic Themes Checklist

Strategic Themes Checklist

There are no more than five strategic themes.
 Strategic themes are realistic and achievable within the organization
 Themes support and connect with strategic goals.
 Themes convey a positive impact upon the organization.
 Themes place focus and direction on what is important.
 Each theme is distinct and different.
 Themes are strategic in scope and not tactical day to day.
 Themes are consistent with the mission and vision of the organization.
 Themes have an impact on the financial objectives of the organization.
 Themes can embrace several strategic objectives and cover all four perspectives with the Balanced Scorecard (Financial / Customer / Internal Processes / Learning & Growth).

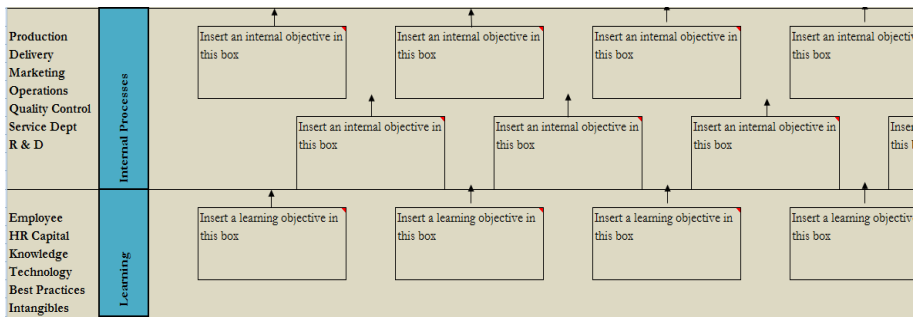
STEP 4: DEVELOPMENT OF STRATEGIC MAP FOR STRATEGIC THEMES

Fourth step would consist the Development of Strategic Map for Strategic themes having four layer maps for plotting and connecting strategic objectives.



For strategic maps place each strategic objective & draw lines to connect the objectives within this map. We should have a strategic map for each of our strategic themes. Make sure that we have upper level management "buy-in" on each strategic map before moving forward. It's a good idea to confer

with each executive one on one with the strategic maps before we have our formal Leadership Team meeting. This will go a long way in making the Team Meeting run smoothly.



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STEP 5: MEASUREMENT

Fifth step would be measurement for defining and testing each measurement having following steps:

- Step 1:* Define a measurement for each strategic objective having Strategic Objective and Measurement to be used, Description of Measurement, Units of Measurement (\$,% etc), Update Frequency etc.
- Step 2:* Define the sources for the measurement having internal documents/ reports, External documents/ reports, Special studies, Programs, Databases etc.
- Step 3:* Define how the measurement is derived and reported having Calculation Required, Assumptions in Calculation, and Availability of Data etc.

Measurement

Step 1: Define a measurement for each strategic objective:

Strategic Objective

Measurement to be used

Description of Measurement

Units of Measurement (\$,% ,etc)

Update Frequency

___ Monthly

___ Quarterly

___ Yearly

___ Other

Step 2: Define the sources for the measurement:

Internal documents / reports

External documents / reports

Special studies

Programs

Databases

Other

Step 3: Define how the measurement is derived and reported:

Calculation Required:

Assumptions in Calculation:

Availability of Data:

Currently Available

Requires some research

Requires extensive research

Not Available at this time

STEP 6: PREPARATION OF A MEASUREMENT INDEX

This step consist the Compile attributes for each measurement in the Scorecard having following Summarization of the attributes associated with each measurement in the Balanced Scorecard.

		Attribute	Update Frequency	Degree of Reliability	Sets Objective	Ability to Benchmark	Responsibility Location	Degree of Fit	Degree of Support
Summarize the attributes associated with each measurement in the Balanced Scorecard									
Financial	F1								
	F2								
	F3								
	F4								
Customer	C1								
	C2								
	C3								
	C4								
Internal	I1								
	I2								
	I3								
	I4								
L & G	L1								
	L2								
	L3								
	L4								

- Update Frequency: M for Monthly, Q for Quarterly, A for Annual, etc.
- Degree of Reliability: V for Very Reliable, M for Medium Reliability, L for Low Reliability
- Sets Objective: Degree of usefulness in establishing objective-High, Medium or Low

- Ability to Benchmark: H for High, M for Medium, L for Low
- Responsibility Location: Team, Project, Department, Manager, etc.
- Degree of Fit: (within the organization) High, Medium or Low
- Degree of Support: Available support (IT, Finance, etc.) in place-Yes or No

STEP 7: LAG-LEAD COMPARISON OF MEASUREMENT

This step would consist the Comparison of outcome measures vs. driver measures. A good balanced scorecard should consist of both outcome and driver type measurements. The two upper perspectives (Financial and Customer) will have mostly outcome type measurements. The lower two perspectives (Internal Processes and Learning & Growth) will include some driver type measurements.

	Strategic Objective	Lag / Outcome Measure	Lead / Driver Measure
Financial		Most of your financial measures are outcomes	
Customer		Most of your customer measures are outcomes	
Processes		Mix of outcomes	and drivers
L & G			Most of your Learning and Growth measures will be drivers

STEP 8: TARGET CHECKLIST

This step would consist Target Checklist having Quick checklist for determining targets. There would be Sources for Determining Targets like Strategic goals, Industry benchmarks/ best practices; Incremental improvement to existing performance levels i.e. Identify performance gaps, areas where the organization must reach a higher level, New baseline must be established.

Target Checklist would consist Targets match up with measurements, one to one; Targets have been established for improving current levels of performance; Targets are quantifiable so that the target communicates if the expected performance was met; Targets are achievable, but they may require changes to existing processes; Long-term Targets (3 to 5 years)

The Grid for evaluating programs against strategic objectives. If the Program helps meet an objective, shade in the box. Some programs may help meet several objectives while other programs may not be beneficial to any strategic objective. Those programs with the most marks should have priority over those programs with the fewest marks. Most programs are usually not related to supporting financial results Therefore; we may not have any marks at the top financial perspective level.

STEP 11: SUMMARIZATION OF OBJECTIVES, MEASUREMENTS, TARGETS & PROGRAMS

This summarizes all of the critical components of balanced scorecard. It can be modified to report a comparison of actual results against targets.

Summarize Objectives, Measurements, Targets & Programs						
	Strategic Objectives	Measurements	Targets			Programs
			Year 1	Year 2	Year 3	
Financial	Insert financial objective	Insert financial measurement	Target	Target	Target	Since financial is the final outcome, there may not be any formal programs directly related to the Financial Perspective.
	Insert financial objective	Insert financial measurement	Target	Target	Target	
	Insert financial objective	Insert financial measurement	Target	Target	Target	
	Insert financial objective	Insert financial measurement	Target	Target	Target	
	Insert financial objective	Insert financial measurement	Target	Target	Target	
	Insert financial objective	Insert financial measurement	Target	Target	Target	
	Insert financial objective	Insert financial measurement	Target	Target	Target	
Customer	Insert customer objective	Insert customer measurement	Target	Target	Target	Briefly describe the programs that will address customer related objectives.
	Insert customer objective	Insert customer measurement	Target	Target	Target	
	Insert customer objective	Insert customer measurement	Target	Target	Target	
	Insert customer objective	Insert customer measurement	Target	Target	Target	
	Insert customer objective	Insert customer measurement	Target	Target	Target	
	Insert customer objective	Insert customer measurement	Target	Target	Target	
	Insert customer objective	Insert customer measurement	Target	Target	Target	
Processes	Insert internal process objective	Insert internal process measurement	Target	Target	Target	Briefly describe the programs that will address internal process related objectives.
	Insert internal process objective	Insert internal process measurement	Target	Target	Target	
	Insert internal process objective	Insert internal process measurement	Target	Target	Target	
	Insert internal process objective	Insert internal process measurement	Target	Target	Target	
	Insert internal process objective	Insert internal process measurement	Target	Target	Target	
	Insert internal process objective	Insert internal process measurement	Target	Target	Target	
	Insert internal process objective	Insert internal process measurement	Target	Target	Target	

STEP 12: GENERIC MODEL

The generic model for balanced scorecard would consist the four perspective having

1. Financial Perspective-Select measurements based up on these stages:
 - Early Stage Company (High Growth)

- Sustainable Stage Company (Modest Growth)
 - Mature Stage Company (Slow Growth)
2. Customer Perspective-Select objectives based on values provided to customers:
 - Value Attributes
 - Image
 - Relationships
 3. Internal Processes Perspective-Select objectives from these categories:
 - Innovation Process
 - Operating Process
 - Service Process
 4. Learning & Growth Perspective-Select objectives from these categories:
 - Employee Competencies
 - Knowledge & Technology
 - Company Culture

Financial Perspective - Select measurements based on one of three stages:		
Early Stage Company (High Growth)	Sustainable Stage Company (Modest Growth)	Mature Stage Company (Slow Growth)
Revenue Growth	Operating Income	Cash Flows
Positive Earnings	Return on Capital	Economic Value Added
Sales Growth Rate	Gross Margins	Cash Value Added
_____	_____	_____
_____	_____	_____
Customer Perspective - Select objectives based on values provided to customers:		
< ----- Value Attributes ----- >		Image Relationships
Quality Price Time Function		
Internal Processes Perspective - Select objectives from three categories:		
Innovation Process	Operating Process	Service Process
- New products and services	- Efficient production	- Service after the sale
- New features existing products	- Timely delivery	- Resolve problems first time
- Unique solutions	- Quality products	- Proactive & Timely
- Fast turnaround to market	- Cost management	- Flexibility / Personal Touch
_____	_____	_____

Learning & Growth Perspective - Select objectives from three categories:		
Employee Competencies	Knowledge & Technology	Company Culture
- Improve employee satisfaction	- Leverage technologies	- Empower the workforce
- Retain key personnel	- Implement best practices	- Set accountability standards
- High employee productivity	- Protect critical assets	- Align employees to
- Continuous training	- Easy access to information	- High morale & motivation
- Leverage core competencies		- Cross functional teams

STEP 13: RATING FOR GENERIC MODEL

This step would consist the factor rating for the factors of generic model to measure the actual status or outcome measurement, past performance evaluation and gap analysis based upon the weighted rating of these factors.

Rating for Generic Model		
Factors	Key Question	RATING
Financial Perspective:		
Revenue Growth	Is revenue showing growing trend? Growing revenue trend shows firm's business performance is well and it is getting plenty of projects.	
Positive Earnings	do the firm have positive earnings? If the stock's earnings are higher than the market expected then the earnings surprise is positive. Because positive earning gives resources and helps in capital formation. It is necessary for sustenance of the firm.	
Sales Growth Rate	Is volume of sales increasing? Increasing volume of sales indicates the sound business transaction of the firm. And it attracts clients.	9
Operating Income	Is operating income positive? Higher operating income shows higher income from the operation of the firm. It shows soundness of the firm's operation.	
Return on Capital	Is firm is getting good return in ratio of its return? Good return on investment attracts more investors.	
Gross Margins	Is gross margin sufficient? Gross margin is a good indication of how profitable a company is at the most fundamental level. Companies with higher gross margins will have more money left over to spend on other business operations, such as research and development or marketing.	
Cash Flows	Is management of cash flow efficient? A measure of a company's financial health.	
Economic Value Added	Is existing product line increasing the economic value?	
Cash Value Added	Is there any increase in cash flow? Increase in cash flow indicates sound financial health of the firm.	
Customer Perspective:		
Quality	Do the products and services have the standard quality measure? Standard quality instill trust among customers. It enhances the image of the	
Price	Is the pricing matches the customer's perceived value? If it is there is increase in customer's satisfaction.	
Time	Are the deliveries of products and services on time to the customers? Timely delivery enhances the image of the firm among customers.	
Function	Does the product have the required utility as required by customers? Matching utility attracts more buyers.	
Image	Is the image of our product brand in mind of customers good? Good image instill the trust among customers and increases good will of the firm which will generate future revenue.	

Internal Processes Perspective:		
New products and services	Do the processes suit the new products and technology? Matching processes and technologies enhance performance of the firm.	
New features existing products	Are we adding some unique features to the existing products? Updated features will result in longer product life cycle.	
Unique solutions	Do we have some unique solution to some particular business domain? It will provide differentiation and hence will result in a competitive	
Fast turnaround to market	Are we capable to respond the changes in the market quickly? Quick responsiveness to market change will help in holding market.	
Efficient production	Is there proper allocation of resources? If it is, it will increase the efficiency of the firm.	
Timely delivery	Are we capable in timely delivery of products and services? Timely delivery builds up the customer's trust in the firm.	
Quality products	Does our product meet the standard quality measures? If it is, positive perception is formed among customers.	
Cost management	Is there efficient and effective cost management? If it is so, it result in cost saving and cheaper product. So finally result in the profit.	
Service after the sale	Do we offer the services after the sales appropriately? If will increase image in the eyes of customers.	
Resolve problems first time	Do we resolve the problems when it arises at first?	
Proactive & Timely Followup	Is there proper proactive approach to sense the changes in market and to respond the market timely?	
Flexibility / Personal Touch	Is there flexibility to add some require adjustment? If it is so.	
Learning & Growth Perspective:		
Improve employee satisfaction	Is employee's satisfaction level improving? Satisfied employee is more productive and there is decrease in turnover.	
Retain key personnel	Do we have proper mechanism to retain key personnel?	
High employee productivity	Is employee productivity high? Higher productiveness greater the production and efficiency.	
Continuous training	Is there a proper continuous training program in place? If it is there in place it will enhance the learning of employees .	
Leverage core competencies	Are we allocating resources to our core competencies? If it is so firm will be leading in in its core business.	
Leverage technologies	Are we leveraging the technology to sustain in fast changing technology scenario?	
Implement best practices	Do we practice and implement the best business practices? Best business practices ensure the effectiveness and efficiency.	
Protect critical assets	Is there proper mechanism to protect the critical assets?	
Easy access to information	Is there proper system of information flow in place? Is the information available when required? Communication is the life blood of an organisation.	
Empower the workforce	Is there proper employee empowerment mechanism in place? It increases the commitment and involvement of employee in the business of the firm.	
Set accountability standards	Is there proper accountability system in place? It improves the employees' working approach.	

CONCLUSION

This is a thirteen steps process for the framework of implementing the balanced scorecard in an organisation or industry. The balanced scorecard retains traditional financial measures. But financial measure tells the story of past events, an adequate story for which investments in long-term capabilities and customer relationships were not critical for success for industrial age companies. These financial measures are inadequate for guiding & evaluating the journey that information age companies must make to create future value through investment in employees, customers, suppliers, technology, processes, and innovation.

Hence this research paper provides a whole sole framework regarding balanced scorecard implementation that is necessary to evaluate the past performance of an organisation & to provide the actual status for outcome measurement of an organisation to the top management and consultants.

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