White Paper

QPR

GUIDELINES FOR IMPLEMENTING BALANCED SCORECARD

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Executive Summary

The Balanced Scorecard is a management system that enables organizations to clarify their vision and strategy and translate them into action. When fully deployed, the Balanced Scorecard transforms strategic planning from an academic exercise into the nerve centre of an enterprise.

A prerequisite for implementing a Balanced Scorecard is a clear understanding of the organizations vision and strategy. The basis for the vision and the strategy should be the holistic view and the information the management receives during systematic strategy work.

The implementation of a BSC should always be organized as a separate management system development project. The project should be planned in the same detail as any other project in the organization and standard project management procedures should be followed. The actual implementation of a Balanced Scorecard can be divided into five phases: Model synthesis, technical implementation, organizational integration, technical integration and operation. Many of the above phases can be performed parallel. This will shorten the total project schedule significantly.

During the model synthesis phase the organization seeks consensus about their vision and strategy and derive the needed measures. Furthermore the strategy of the organization is quantified into measures or Key Performance Indicators (KPI's). The measures can be derived from the strategy using Critical Success factors (CSF's) or alternatively using Strategy maps. The key properties of each of the measures in a Balanced Scorecard are also defined.

In the technical implementation phase the visions, strategies, critical success factors, measures etc. are entered into the system. The technical implementation steps include; installation of the software, training, building of the scorecards, setting target and alarm levels, setting data consolidation rules as well as defining graphs and possible customised reports.

The objective of the organizational integration of the Balanced Scorecard is to integrate it with the management and reporting processes of the organization and communicate the BSC to all the members of the organization.

Technical integration is performed to reduce the effort needed to collect measure data. The Balanced Scorecard system is integrated to operational

IT systems, databases and/or data warehouses such as financial reporting systems, Enterprise Resource Planning (ERP) systems or Customer Relationship Management (CRM) systems.

The benefits from the Balanced Scorecard are realized when the Balanced Scorecard is used in day-to-day operations. Data update, analysis and reporting are performed regularly within the management and reporting processes. From time to time it is also necessary to refine the Balanced Scorecard. The Balanced Scorecard should be a standard tool used by the management team in their strategy work.

Due to the nature of a Balanced Scorecard project exact time & cost estimates for the whole project can be difficult to make in advance. The needed effort depends very much on how far the organization has advanced in its Balanced Scorecard thinking as well as the complexity and number of Scorecards implemented. The total costs for a typical Balanced Scorecard project consist of: Time used by customer's own resources (50%), outside process consultancy (20%), outside implementation consultancy (15%), software licenses (15%).

A fast track approach to implement Balanced Scorecard can be used successfully when implementing Balanced Scorecards with organizations that have already used Balanced Scorecards or to create a fast pilot Balance Scorecard implementation.

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Introduction

The Balanced Scorecard is a management system (not only a measurement system) that 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. When fully deployed, the Balanced Scorecard transforms strategic planning from an academic exercise into the nerve centre of an enterprise.

This document outlines a procedure for implementing a Balanced Scorecard for organizations with little or no previous experience of Balanced Scorecards. The emphasis is on the practical and technical implementation of the Balanced Scorecard System.

A fast track approach is also outlined. This approach can be used when implementing Balanced Scorecards with organizations that have already used Balanced Scorecards or to create a fast pilot Balance Scorecard implementation.

Prerequisites

Before an organization can start implementing a Balanced Scorecard it needs a clear understanding of its vision and strategy. It is the management's responsibility to define a vision, formulate a strategy and set strategic goals regardless of a Balanced Scorecard being implemented.

The basis for the vision and the strategy is the holistic view and the information the management receives during systematic strategy work. The strategic principles can seldom be bought from outside consultants, however outside expertise can facilitate the process of creating them. Common tools used to help structure the strategy work are; Strategy Mapping, PEST (Political, Economical, Societal, Technological) analysis, SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis, Porter value chain analysis, Porter Five forces of competition analysis, BCG Matrix analysis.

Planning Your BSC Project

The implementation of a BSC should always be organised as a separate project. The project is very much a management system development project, rather than an IT project. Before the actual project starts the following questions should be answered:

- What is the goal of the BSC project? What current problem does the Balanced Scorecard solve? What is the goal state?
- Who leads the project? The leader should be at least a member of the management team of the SBU, which scorecard is defined.
- Who participates in the project? In a large organization a member of the corporate management should be involved in order to align the SBU scorecard with the overall corporate strategy. In general different competences should be represented in the project team. The responsibility for BSC project should not be delegated to the controller(s), business development manager or quality manager. Top management input and buy-in is crucial for a successful balanced Scorecard implementation.
- Which unit (or units) is the pilot unit? In a small organization a Balanced Scorecard can be implemented in the whole organization. In a larger organization one or a few pilot units should be chosen.
- Standard Project planning issues, budget, milestones, risk analysis
- How will the IT system be rolled out? Hardware and software allocation? Who is responsible for administering the system?

Responsibility: The owner of the Balanced Scorecard / project manager

Methodology: Standard project planning

Effort: Customer: 2-5 days
Consultant: 1 day

Calendar time: 2 weeks

Implementation Phases

Several different procedures describing the building process of a Balanced Scorecard have been presented. The procedure described below is just one of them and is not necessarily better than any other procedure.

Before the organization is ready to implement a balanced scorecard a consensus of the organizations vision and strategy has to be reached (see chapter: "Prerequisites").

The actual implementation of a Balanced Scorecard can be divided into five phases:

- Model synthesis
- Technical implementation
- Organizational integration
- Technical integration
- Operation
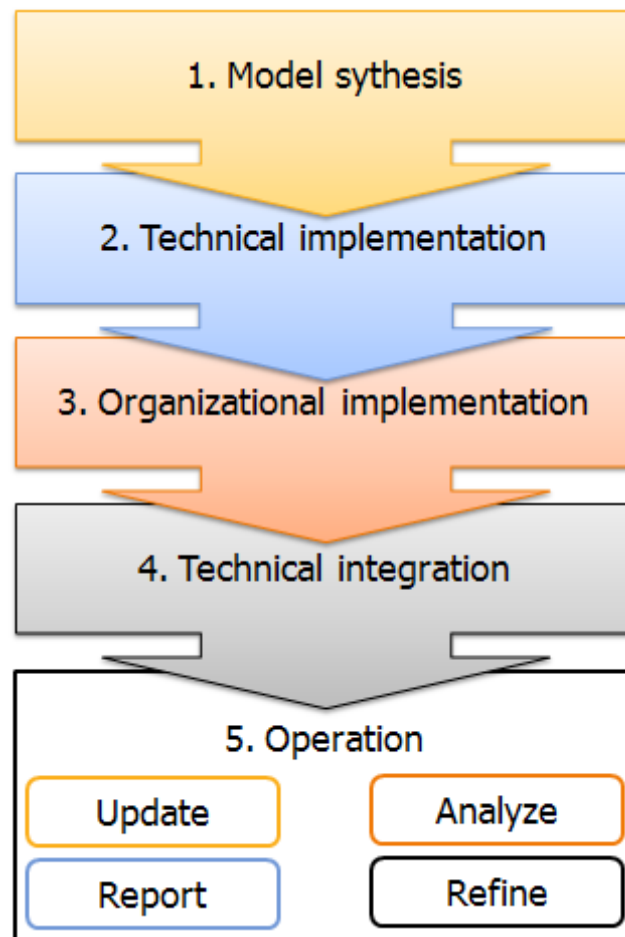
Many of the phases can be performed parallel. This will shorten the total project schedule significantly.

Phase 1: Model Synthesis

During the model synthesis phase the organization seeks consensus about their vision and strategy and derive the needed measures. The model synthesis phase consists of two major tasks:

- Strategy synthesis (structure synthesis)
- Measure synthesis

Strategy Synthesis

The objective of the strategy synthesis phase is to form and commit the management to a consensus view about the organisations vision and strategies. It is not unheard of that there exist several different views of vision and the strategic principles within an organisation (this is actually one problem that Balanced Scorecard addresses). A good way of finding consensus is to conduct interviews with the management team. The results of the interviews can then be concluded into a common view that everybody can commit to e.g. in a workshop environment. In addition the terminology and the elements used in the BSC as well as the structure of the BSC will be decided.

Measure synthesis

During the measure synthesis phase the strategy of the organisation is quantified into measures or Key Performance Indicators (KPI's). The measures can be derived from the strategy using Critical Success factors (CSF's) or alternatively using Strategy maps. The CSF approach is more straight forward, but lacks the ability to describe the logical cause and effect relationships between the measures in the different perspectives.

The key properties of each of the measures in a Balanced Scorecard are also defined. Attributes needed to be defined are; measure name, unit, responsible measure owner, time-scale, target and alarm levels.

Responsibility: The owner of the Balanced Scorecard / project manager

Methodology: Process consultancy, workshops, management interviews

Effort: Strategy synthesis:Customer: 10-200 days

Consultant: 5-100 days

Measure synthesis:Customer: 15-30 days

Consultant: 5-20 days

Calendar time: Strategy synthesis: 3 – 36 months

Measure synthesis: 1 – 3 months

Phase 2: Technical Implementation

With a powerful Balanced Scorecard tool like QPR ScoreCard the technical implementation of the Balanced Scorecard starts already during the Model Synthesis phase. The Visions, Strategies, Critical Success Factors, Measures etc. are entered into the system interactively as they are processed e.g. during a Workshop.

- The technical implementation includes the following steps:
- Installation of the software,
- Basic training for the persons building scorecards
- Building of the scorecards (KPI's, …)
- Setting target and alarm levels
- Setting calculation formulas to consolidate the data
- Defining graphical properties for graphs

If needed following additional steps can be taken:

- Importing historical measurement data from text file / excel
- Creating Reports with the QPR Add-In for Microsoft Office

In some cases the customer does most of the technical implementation. The implementation consultant then takes a more supportive role.

Responsibility: Implementation Consultant

Methodology: Workshops, off-site implementation

Effort: Installation: Customer: 1 day

　　　　　　　　　　　　　　Consultant: 1 day

　　　　　　　　Training:　　Customer: 2 days / Power User

　　　　　　　　　　　　　　　　　　　　　0.5 days / End User

　　　　　　　　　　　　Consultant: 2 days / 10 Power Users

　　　　　　　　　　　　　　　　　　　　　0.5 days / 30 End Users

　　　　　　　　Implementation: Customer: 1–3 days / scorecard

　　　　　　　　　　　　　　　　　　Consultant: 2-5 days / scorecard

　　　　　　　　Custom reporting: Customer: 0.5 days / report

Consultant: 1 day / report

Calendar time: 1–6 months

Phase 3: Organizational Integration

The balanced scorecard system should not be set up running as separate process in the organization. The BSC is a management system and should be tightly integrated to the processes of the organization and communicated to all the members of the organization.

The organizational integration phase includes the following tasks:

- Definition of the persons who are responsible for measure data and their empowerment.
- Explanation of the objectives of Balanced Scorecard implementation to the employees.
- Re-engineering the management and strategy process
- Re-engineering the reporting process.

The BSC system should be used in management processes like "monthly review", "quarterly business review" etc. Action plans and Comments are added as part of the management processes. Usually salary bonuses are based on some measures included in the BSC system

Responsibility: The owner of the Balanced Scorecard / project manager

Methodology: Process consultancy, process development, workshops

Effort: Customer: 10-50 days

Consultant: 5-20 days

Calendar time: 1 – 12 months

Phase 4: Technical Integration

An effective way to reduce the effort needed to collect measure data is to integrate the Balanced Scorecard system to operational IT systems,

databases and/or data warehouses. Typically the data for 30%-60% of the measures in a Balanced Scorecard is collected by 1-3 different operational systems such as financial reporting systems, Enterprise Resource Planning (ERP) systems or Customer Relationship Management (CRM) systems. The rest usually consists of intangible measures that need to be collected separately e.g. inputted manually.

The scope of the technical integration varies enormously, number of integrated measures and number of outside systems used being the most important drivers.

The technical integration steps are the following:

- Identification of the imported measures and the source systems
- Analysis of the database structure and exporting capabilities of the operative systems
- Defining the procedure to get measure data from data sources including data identification, modification and scheduling.
- Implementation of the link between QPR ScoreCard and the operative systems.

Technical integration can be performed parallel with organisational integration and often partially overlaps the operation phase. Effort and calendar time needed for this phase are highly dependent on the number and the complexity of the source systems.

Responsibility:	Implementation consultant / customer IT department		
Methodology:	On-site and Off-site implementation		
Effort:	Analysis & specification:	Customer: 5-10 days	
		Consultant: 5-10 days	
	Implementation:	Customer: 1-10 days	
		Consultant: 1-100 days	
Calendar time:	1 week – 6 months		

Phase 5: Operation of the BSC System

Defining and building a Balanced Scorecard is a very useful learning experience in itself. The organization receives deeper understanding of what drives its business and the cause and effect relationships between the drivers. Still the real benefits from the Balanced Scorecard are realized when the Balanced Scorecard is a part of the day-to-day operations.

During the organizational integration phase the Balanced Scorecard is integrated to the normal management and reporting processes of the organization. Within these processes following tasks are performed regularly.

- Update measure values
- Analyze the Balanced Scorecard results
- Report the Balanced Scorecard Results
- Refine the Balanced Scorecard model

The Balanced Scorecard should also become a standard tool used by the management team in their strategy work.

Responsibility: Scorecard owners

Effort: Continuously 2h / month / Scorecard

Estimating Project Scope and Cost

Due to the nature of a Balanced Scorecard project exact time & cost estimates for the whole project can be difficult to make in advance. The needed effort depends very much on how far the organisation has advanced in its Balanced Scorecard thinking as well as the complexity and number of Scorecards implemented. The estimates presented above represent averages for customers with little or no previous experience from Balanced Scorecards. The estimates should be re-evaluated separately for each case.

The total costs for a typical Balanced Scorecard project consist of:

- Time used by customer's own resources (50%)

- Outside process consultancy (20%)
- Outside implementation consultancy (15%)
- Software licenses (15%)

In some cases customers might want to take the main responsibility for the Balanced Scorecard work. The consultant's role is then to train and support the customer, but not be involved in the actual implementation.

Fast Track Balanced Scorecard Process

When implementing Balanced Scorecards in organizations that have already used Balanced Scorecards to some extent, a "fast-track" procedure can be used. The fast track procedure can also be used to create a fast pilot Balance Scorecard implementation for any company familiar with performance measurement. The fast track procedure follows the same principle as the normal procedure, but many of the stages in the normal procedure are omitted because they are already done or self-evident.

The fast track procedure has five main stages/events:

1. Mission, Vision & Strategy review and workshop preparation. A meeting with the leadership team where, the mission, vision, strategic and operational plans as well as budgets are reviewed. Furthermore a strategy map is outlined and workshop preparations are delegated. Workshop preparations include software installations.

2. Development workshop. A one-day workshop with the leadership team where the strategy map is completed, strategic objectives are identified and measures are selected and defined. The structure of the Balanced Scorecard is designed and a first draft of the Scorecard is implemented with QPR Scorecard.

3. Refinement & Consensus building. The draft of the Scorecard is refined by exposing it to wider group of people. During short meetings with key interest groups measure definitions are refined, targets set and measures sources identified. The results are immediately implemented into the Scorecard model in QPR ScoreCard.

4. Finalization and communication workshop to educate and communicate the Balanced Scorecard a final one-day workshop for all interest groups is held. A plan for extending the Scorecard to other units/lower levels is

created. Integration of the Balanced Scorecard into the strategy and reporting processes is planned.

5. Technical integration kick-off Technical integration of the Balanced Scorecard system to operational IT systems is kicked of with a joint meeting with the customers IT support. Measure data source systems are identified and data transfer formats are defined. The customer does the actual implementation.

Responsibility: Customer

Methodology: Workshops, On-site and Off-site implementation

Effort: Workshops: Customer: 2 days / participant

                                   Consultant: 2 days

                        Meetings: Customer: 4 x 0.5 days / participant

                                   Consultant: 2 days

                        Implementation: Customer: 1-10 days

                                   Consultant: 1 days

Calendar time: 1 week – 2 months

Appendix I: Implementation Examples

1) Small Implementation

Hardware configuration: 1 Windows Server 2003 – 2008
(Database+ Web server+ AS+ WAS)

Software configuration: 1 QPR ScoreCard Application Server (AS)
1 QPR ScoreCard Web Application Server (WAS)
3 QPR ScoreCard Designer - clients
30 QPR ScoreCard Browser - clients

Scorecard size: 1 QPR ScoreCard model
2 Consolidation Scorecards
5 Scorecards
200 Measure elements

Users: 3 Developers
5 Power Users
25 Normal Users

Data Sources: 0-3 Source Databases
1-5 Excel Files

Project Estimates: Model synthesis: Customer: 25 days
Consultant: 10 days

Technical implementation: Customer: 25 days
Consultant: 10 days

Organizational integration: Customer: 10 days
Consultant: 5 days

Technical integration: Customer: 3 days
Consultant: 3 days

Appendix II Summary of BSC Project Steps and Estimates

Phase / Step / Task	Customer effort (days)	Consultant effort (days)	Calendar time
Project planning	**2-5**	**1**	**2 weeks**
BSC objectives and scope			
Define tasks and resources			
Creating roll-out plan			
Setting milestones			
Outlining the budget			
Model synthesis	**25 – 230**	**10 – 120**	**4 – 39 months**
Strategy synthesis	10 – 200	5 – 100	3 – 36 months
Management interviews			
Synthesis workshop			
Measure synthesis	15 – 30	5 – 20	1 – 3 months
Defining CSFs / strategy map			
Selecting measures			
Defining measure properties			
Technical implementation			**1 – 6 months**
Installation of software	1	1	
Training			
Basic training (Power users)	2 / User	2 / 10 Users	
Basic Training (End Users)	0.5 / User	0.5 / 30 Users	
Implementation	1 – 3 / SC	2 – 5 / SC	
Defining the Scorecard hierarchy			

Defining the linked elements			
Defining measures			
Setting target and alarm levels			
Setting consolidation formulas			
Setting graph properties			
Import. historic. measurem. data*			
Creating customized reports*	0.5 / report	1 / report	
Organizational integration	**10 – 50**	**5 – 20**	**1 – 12 months**
Analysis of current processes			
Re-engineering of processes			
Defining responsibilities			
Communication of BSC			
Technical integration*	**10 – 50**	**5 – 20**	**1 – 12 months**
Analysis & specification	5 – 10	5 – 10	
Identify integrated measures			
Identify source systems			
Gathering system/data descriptions			
Implementation	1 – 10	1 – 100	
Defining / mapping measure IDs			
Creating Queries			
Testing	2	1	
Operation	**2 h / month**		
Updating measure values			
Reporting BSC results			
Analyzing results			
Refining Balanced Scorecard model *			

Next Steps

To learn more about QPR Software's Balanced Scorecard solution please visit http://www.qpr.com/balanced-scorecard.html

To learn more about testimonials from organizations that applied the QPR Balanced Scorecard solutions please visit http://www.qpr.com/cpm-customers.html

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QPR Software Plc is an international, highly regarded partner for enterprises and public sector in process development and business performance improvement. QPR's mission is to help people and organizations to take control of their business processes and achieve their goals.

QPR software has been implemented in more than 1,500 organizations across the globe and is provided in more than 20 languages. QPR was founded in 1991, has its headquarters in Helsinki, Finland and co-operates with an extensive network of talented partners in over 50 countries worldwide.

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