

1 Introduction Chapter

1.1 *Background to the dissertation*

Research and preparation work for this dissertation started with a “prequal” project entitled “Methods to manage Business Process Re-engineering projects” (Project BPJ 780 – 1998). It was based on techniques and tools utilised during BPR and the project management principles applicable to re-engineering projects. These subjects now form part of the chapters discussing BPR methodologies and Project Management of BPR projects. This project also involved studies from the Sietel re-engineering project, but focussed more narrowly on experiences during the design phases of the project.

The scope of this dissertation is wider than the prequal project, in that it examines more elements involved in BPR and was only finalised after the closing of the Sietel re-engineering project. Thus it reviewed the Case Study project in its totality and could make conclusions about post BPR results.

Sietel is a major supplier of telecommunication equipment with an annual turnover in the excess of R3 billion (1999). The need for BPR was evident to the Sietel management based on a change in the telecommunication market, which required Sietel to change its way of doing business. In addition Sietel had to address its ability to maintain and increase its profit margin, while aligning itself with new market opportunities (3rd cellular license & 2nd fixed line license). It undergone an extensive BPR effort over the last 2 years, of which full time resources were dedicated for 19 months of that period. The author himself was one of the dedicated resources along with other internal Sietel employees and external consultants.

In addition to literature studies, the Sietel case study, and working closely with experts in the field of BPR, information for this dissertation were also drawn from other post graduate courses presented at the Pretoria University. Some of these courses being: Financial Management BFS 820, Business Logistics BLK 780, Quality Assurance Management BTY 780, Advanced Information Systems Design GIO 780 and Business Architectures BBA 780 presented at the Business School, Information Technology department and Industrial Engineering.

1.2 *Dissertation objective*

David Upton, from the Harvard Business School, introduced in his course notes: “Designing an operations improvement path” a framework for designing an improvement path that is applicable across a range of operations situations. This framework ask the following 7 critical questions [34. Upton]:

1. Context and motivation: Why is the improvement initiative taking place and what is driving it?
2. Direction and goals: Where is performance to be improved and how will it be measured?
3. Focus: Where will we concentrate internally to achieve the desired goals?
4. Methods and techniques: What will our “toolkit” be for this improvement effort?
5. Resources: What financial and human resources will be required?
6. Organisation and phasing: How will the initiative be organised, and in what order?
7. Learning capture and leverage: How will what is learned in the initiative be captured?

In the epilogue of his book “Reengineering the corporation”, Hammer felt gaps still needed to be addressed in terms of a re-engineering methodology, how to orchestrate the change campaign, the design and timing of releases of re-engineered processes, and tactics for dealing with the most common BPR problems. [4. Hammer et al]

The objective of this dissertation is the exposition of seven critical elements that is of importance during organisational Business Process Re-engineering (BPR). As approached in this dissertation these elements are also applicable to other change management philosophies. References will also be made to other philosophies and their interaction with BPR. These seven elements are:

1. The assessment of Economic Value Adding (EVA) opportunities for BPR
2. Aligning BPR initiatives with the defining of organisational strategy
3. BPR approaches, methodologies and tools
4. Utilisation of best practices and benchmarking during BPR
5. The Project Management of BPR projects
6. Implementation drivers to ensure the success of BPR
7. Utilisation of Business Architectures to capture results from BPR

By no means are these the only elements required for BPR, but they do address the core of the philosophy. Information Technology utilisation during BPR, as an example are only referred to, but not discussed as an element.

Even though it is not the main purpose of this dissertation to address Upton or Hammer's questions and open issues, there are relevant similarities between the seven elements discussed in this dissertation and questions from these gurus. The main purpose of this research dissertation is to explore the BPR philosophy in its totality, but also segment it into its critical parts. Each of these parts also stands in their own rights as management philosophies and can be viewed individually in their contribution to BPR efforts. Thus individual chapters can be used as separate BPR tools, but still form part of the dissertation as a BPR toolbox.

The research done for this dissertation was based on literature studies of re-engineering related books, articles from academic and commercial magazines and conferences, case studies presented at conferences and in academic literature, and from internet published articles and whitepapers. The knowledge gained from literature searches were compared and tested against experiences from a 2-year re-engineering project, which the author were involved in. Vice versa, methods used in the project are also referenced against these literature studies and this (Sietel) re-engineering project are also used as case study through out the dissertation. Because of vast BPR expertise contained within management consulting companies, much of the research were also drawn from white papers and articles produced by various such companies. In addition training material presented by one such company (Gemini), which the author worked closely with on the Sietel re-engineering project, were also used.

Most of the articles, white papers and HTML web pages that was in electronic format at the time of research, accompany this dissertation in the form of a CD ROM. The purpose of this CD is to act as a BPR toolbox containing BPR related literature studies and relevant training presentations, which aspirant BPR practitioners can use as aid.

1.3 Motivation for dissertation approach

Although each of the chapters can stand in their own right, there is a specific logic in the sequence in which they were inserted in this dissertation. It has to tell a business story. The initial two chapters start with a business orientated approach at a high level for the purpose of convincing executive management. Once the decision for BPR is made at the high level, more detail regarding BPR has to be considered by the practitioners and executors of the initiative. Thus the middle three chapters provide guidance on direct BPR related activities. The two chapters that follow focus on elements critical to finalising BPR initiatives positively and leaving sufficient evidence of its results. The final chapter is an example in the form of a case study on the contents of this dissertation.

1.3.1 High level, business orientated approach

As with any project, change management, or BPR projects must have a financial sound reason for undertaking. Thus the first element coming to attention is that of quantifying a financial business case for BPR through EVA opportunities. To ensure that a BPR initiative is not misguided, and addresses the organisation's core business issues, strategy alignment is necessary. The first two elements on assessing EVA opportunities and linking organisational strategy to BPR initiatives address this business orientated approach required for BPR.

1.3.2 Practitioner's guidance

Once the scene is set in terms of the reasoning and strategy alignment for a BPR exercise, attention must be given to the required BPR activities. The chapter on BPR methodology provides theoretical and practical guidance to the process, tools and interventions for re-engineering. Closely related to the methodology are best practices and benchmarks necessary to support the re-engineering exercise. Practitioners need to have best practices knowledge in order to re-engineer processes. As part of BPR execution, the orchestration of the whole exercise is critical. The Project Management of BPR projects chapter focus on specific project management activities that is most applicable to BPR projects.

1.3.3 Finalisation elements

A unique characteristic of projects is that they have definite end dates. Similarly BPR exercises must come to a definite end. In order to accomplish BPR finalisation, evidence of the exercise must be prominent in the organisation in terms of the change that was accepted and implemented, and blue prints of what was done. The Implementation Drivers chapter focuses on critical success actions that can be followed to ensure organisational acceptance of the BPR results and delivering a positive outcome. The Business Architectures chapter reviews various structures that can be used to capture the final blue prints of the organisation, and also provide support in the form of reference architectures.

1.3.4 Concluding case study

This dissertation concludes with the business architecture of a re-engineered function from the Sietel case study. The business architecture format was customised according to the re-engineering requirements of the specific function and encapsulates most of the philosophies examined during this dissertation.

2 Assessing opportunities for BPR

2.1 Economic Value Adding (EVA) Opportunities Introduction

Why re-engineer a business, or undertake massive change management projects? There are a number reasons why organisations should be hesitant about BPR:

- BPR is a painful experience for the whole organisation, management are confronted with uncomfortable facts and decisions, and employees are inundated with uncertainty and changes.
- BPR is a dangerous exercise, it tampers with the organisation's fabricate, and it is very possible to effect an organisation's business negatively.
- It is a very expensive exercise in the form of consultancy costs, resource costs, and more often than not, IT implementation costs.

Management need to state a reason for BPR in terms of what is the organisation's current situation and why it cannot remain in the situation (the 'burning platform'), then state where the organisation needs to be (the 'beneficial situation'). When looking at the generic benefits of BPR (once it has been successfully implemented, which in itself only have a success rate of 25-50% [12. Bulletpoint]), experts has written books full about all the intangible benefits of BPR:

- Creating a lean, mean, dynamic organisation with a culture more susceptible to change (which is especially required in global market's adapt or die environment).
- Massive knowledge transfer throughout the whole organisation, leading to a transparency and better understanding of the organisation's business for all employees.
- Better alignment of business processes, which leads to more accurate measuring of operations and faster detection of something going wrong.
- Improved productivity in operations and freeing-up of capacity due to optimised processes.

Such deliverables are all very well, but it does not easily relate to financial benefits for shareholders and executive management to see. Indirectly these benefits can lead to increased business opportunities, or identifying staff that can be made redundant, and a reduction of costs. But the days of 'slash and burn', and downsize re-engineering has come to an end due to a global trend from governments to oppose rationalisation of organisations. Emphasis is rather placed on the creation of wealth, thus the deliverables from change management projects are to produce tangible, quantifiable Economic Value Adding (EVA) opportunities that can be measured in financial means.

2.2 Chapter Objective

Before BPR is taken on, a business case must be presented to executive management. Just like with any other business investments, a BPR project should deliver a return on its investment. This chapter will look at the various types of EVA opportunities for BPR, and how these opportunities are identified, converted into benefits cases and realised. A set of benefits cases can be compiled into a business case and returns projected over a future period.

2.3 Defining EVA opportunities for BPR

Vello Reili define EVA as: ‘The EVA concept comes from accountants realising that the traditional "Bottom Line", i.e. after tax earnings, numbers do not completely reflect the equity shareholder viewpoint. The missing part is the fact that equity shareholders have invested money and they expect a return on that investment. If the "Bottom Line" is less than their expected return, they are dissatisfied. If it is greater, they are happy. The amount by which the "Bottom Line" exceeds the equity shareholders return expectation is called EVA.’ [47. Reili] To put it in simple words: EVA measure if a company’s profit exceeds its cost of capital, thus a positive EVA would be if return on capital exceeds cost of capital.

To identify financial opportunities that will add economic value to an organisation, the focus of BPR initiatives are to influence an organisation’s Earnings Before Tax (EBT). EBT include all earnings on ordinary activities before taxation [3. CIMA]. ‘Creative accounting’ can also influence after tax earnings (in order to effect EVA), but it is the effect of operational issues that this dissertation focus on. Typically the following three types of operational initiatives will effect EBT:

1. Increase sales or revenue enhancement
2. Cost reduction or avoidance
3. Asset management or interest cost savings

Each one of these types of initiatives can contribute in various means to EVA opportunities [46. Siemens top+]. Figure 2-1 illustrates how the combination of these cost cutting and sales increase initiatives produce a “V-concept” on improving EVA.

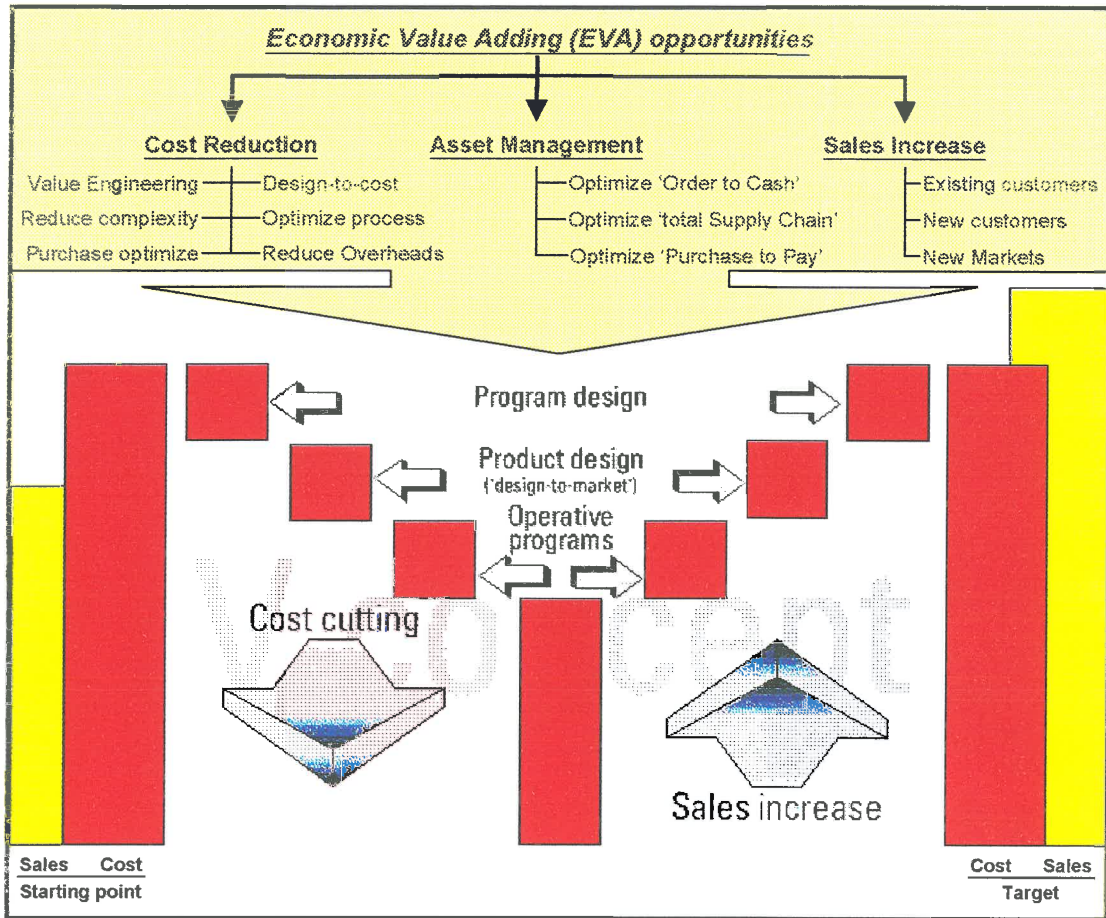


Figure 2-1 The V-concept of improving EVA [46. Siemens top]

2.3.1 Sales Increase

Sales Increase or Revenue Enhancement can come from:

- Obtaining increased sales from existing customers
- Obtaining new customers in an already served market
- Penetrating new markets for an existing product/service range or for a new product/service range.

By re-engineering the Sales Force Effectiveness of an organisation, such revenue enhancement objectives can be pursued. To attempt such means of increasing sales, requires either strong growth in the market, or a rethinking of the business approach. Depending on the particular business situation, sales levels can be increased in a number of ways:

- **Increasing sales in existing markets** can be done by tapping reserve potential among existing customers. By becoming a preferred supplier to customers, or by marketing more aggressively, or by providing customers with new business offers even before they request it, more business can be gained. The aim of is to provide increasing value to your existing customers.

- **Moving into new regions** by means of portfolio optimisation, or co-operative ventures and acquisitions. Portfolio optimisation is a strategic planning process at both businesses level and at product level. From the point of view of an entire business, portfolio optimisation involves distributing resources correctly among the various business fields. Opportunities as to which can be expanded, which maintained at current levels and which scaled down can be identified. If there is a lack of organisational resources in a lucrative area, co-operative ventures can be pursued.
- By **developing new business fields**. This initiative depends on the sales strategy. It can be broadened to offering products/services that is closely related to the organisation's existing offerings, or the current portfolio can be offered to a wider market (moving into under developed countries, for example).
- By **introducing new products**. If the organisation have development capabilities, it can utilise it by taking advantage of introducing new products into markets. Especially when the development process is optimised for a quick time to market, benefits can be reaped from being the first and only supplier of new products.

2.3.2 Cost Reduction

Cost Reduction or Avoidance can depend on the nature of the costs incurred and the structures involved, a variety of levers can be worked. The levers include:

- **Pruning the product program**. By means of *Value Engineering* all features, functions and components of products or services can be identified and quantified. Cost analysis on these elements can help to identify opportunities to increase value, while reducing costs.
- **Design-to-cost** (where cost-cutting is built into the development process). Concurrent Engineering techniques such as Design For Manufacturing (DFM), and Design For Assembly (DFA) identifies opportunities to minimise the number of parts, and optimise the manufacturing and assembly efforts for products [39. Brecker Associates]. These improvements are incorporated into the design of the product, which reduces its overall costs.
- **Reducing complexity** – Simplifying operations by eliminating unnecessary activities create opportunities for reducing operational costs. Sometimes old manual control methods on operations added non-value-adding activities. With implementation of modern systems (such as a bar-coding system in picking and dispatch operations, for example) such operations can be simplified, reducing man-hours and lead-time.
- **Optimising processes** – Alignment and streamlining of Supply Chain processes can cause “fall-through-the cracks” discrepancies and redundant operations that cause additional costs to be eliminated. Unclear Roles and Responsibilities, for example, can cause no ownership of some

activities and double work of other activities. These occurrences usually accumulate as unplanned costs on projects, or additional overhead costs.

- **Purchase optimisation** – A large portion of any organisation's turnover is spend on purchases of materials from suppliers. Even a small reduction on average purchase costs can lead to profit margin increase. Other supplier driven costs range from ordering, scheduling delivery, and paying for the materials, through to the scrap, rework and obsolescence caused by the materials and schedule disruptions from incorrect deliveries. These areas offer considerable opportunities for cost reductions.
- **Lowering overhead costs.** The objective of BPR is to eliminate all non-value-adding activities. Such activities usually accrue costs as overheads. The challenge is to identify these activities and either incorporate relevant costs to projects, products or services, or reduce and eliminate these costs in order to achieve an optimum margin of overhead costs.

2.3.3 Asset Management

One of the most important business opportunities is asset management. The optimised deployment of company assets improves EVA through interest cost savings. Fixed assets and working capital need to be kept as low as possible. Of these, special attention is devoted to working capital. Working Capital is made up of receivables and inventories less payables and down payments received. Working capital and fixed assets together constitute a company's business assets. Deploying and managing these assets in the best possible way is the task of asset management.

Attempts in the form of BPR initiatives to reduce working capital involve optimising the following key processes:

- The process from formulation of an order, through order processing, to receipt of payment (the "**order to cash**" process). From the moment a customer request a quotation or places an order, costs start to incur. It is important to get payment from the customer as soon as possible. Lead-time reduction and progress payments are the most common levers used.
- The process by which materials flow through the company, from storage and production through to shipment (the "**total supply chain**" process). Any type of material in any state resembles capital tied up. To save interest on working capital, key drivers are increasing inventory turnover, shortening of production lead times, and reducing transportation time.
- The process from selection of suppliers through purchase orders to receipt of goods and payment of the suppliers (the "**purchase to pay**" process). In this process advantage can be taken of the credit supplied by suppliers. The objective though should not necessarily be to try and pay suppliers as late as possible, but to optimise the materials sourcing process. Ideally goods received from suppliers should be processed, packed and delivered to customers, and the customers invoiced even before paying the suppliers.

2.4 Identifying, Realising, and Measuring Opportunities

All the EVA initiatives mentioned in the previous paragraph is very good for identifying opportunities and motivations for BPR. The problem though, is still *how* to quantify these opportunities in financial terms *before* BPR is undertaken. For this purpose a Benefit Case Tracking methodology must be used to identify, quantify, scoreboard, track and realise opportunities.

2.4.1 Benefits Cases

Defining Benefits Case opportunities for BPR are done during a pre-project analysis phase (refer to the Analysis and Design phase in chapter 2). The Benefits Case methodology followed are [33. Tirisano]:

1. **Opportunity/Idea Identification** - Supply Chain assessment with the help of Best Practices and Benchmarks (refer to chapter 3) and sometimes the use of outside consultants for unbiased perspectives. In this assessment opportunities for improvement are identified. For each opportunity a hypothesis is formulated (idea identification) with a proposal for optimisation and a related benefit type (sales increase, cost reduction or asset management).
2. **Defining targets** - Each of these hypotheses must be tested and validated with relevant process owners in the organisation, and quantifiable and non-quantifiable targets must be derived. For this validation process employees can be interviewed, or involved in workshops that deal with the specific optimisation issues in their areas of expertise. From their experience process owners should be able to project quantifiable targets with a low case and a high case.
3. **Scoreboarding Benefits Cases** - For each validated hypothesis a Benefits Case, which defines the idea, the target and Key Performance Indicators (KPI's) that must be measured are scoreboarded. KPI's are the core of Benefits Cases. It is a quantifiable indication of process improvement that can directly be related to financial opportunities. Included in the Benefits Case is the calculation of how KPI's relate to financial gains or losses. Usually KPI's are referenced against a baseline year (KPI example: Debtors days for 1997 is 55 days = R21'6m in asset management costs; Improvement of 10 days = R3'9m EVA opportunity). Calculation of benefits is always in relation to the baseline, to ensure business growth is filtered out and only optimisation is measured. Each Benefits Case must be signed of by a Coach, who validate the logic of calculations, and the Executive Steering Group for the BPR project. Figure 2-2 is an example of an Asset Management Benefits Case that is structured for scoreboarding.

2.4.2 Benefits Case examples

The following tables are examples of actual Benefits Cases from a BPR project within Sietel. [33. Tirisano] It describes how the ideas were defined, what were targets set, the procedure for realising and monitoring the benefits, and what were the actual results. All four these examples came from the Installation and Commissioning area of the organisation. The first 2 examples (in Table 2-1) were Benefit Cases with specific Cost Reduction objectives:

Installation Catalogue Time Reduction:	
<p>Idea Identification: Reduce catalogue (standard) times to perform installation activities, due to: better training, more experience, increased productivity, better designed equipment (design for manufacturing & installation) and optimised test procedures. Installation work is done in less time, but still sold at the same price. This increases the profit margin and give Sales managers better negotiation ability.</p>	<p>Targets definition: Project Implementation set the target to reduce installation times and cost estimates by 10% per year. Sales thus increase the installation profit margin by 10% per year.</p>
<p>Procedure: Installation managers reviewed the average times it took to perform installation activities and complete projects by measuring man-hour KPI's. Every 6 months these KPI's were then reviewed by the Installation managers and compared to the catalogue installation times on which quotes are based. Relevant catalogue times are then reduced.</p>	<p>Results: The Project Implementation department has reduced their installation quotes by 12% or R785k in total, which directly benefited the profit margin of the organisation. .</p>
Reduction of Unplanned Overtime:	
<p>Idea Identification: Better project management, process optimisation, clearer Roles and Responsibilities and interaction with logistics, facilitate better planning for installation projects. This cause reduction of waiting time on site and the elimination of unplanned overtime, which is seen as overhead costs.</p>	<p>Targets definition: In the 96/97 year, Installation activities used 19% more time than planned (negative gap of 19%). This gap equals to an annual overhead cost of R5'5m, which can be reduced by better planning and improved project management.</p>
<p>Procedure: When estimating hours required to perform installation activities, Installation Project Managers take into consideration that certain of the work must be done after hours, (due to customer requirements) and thus plan accordingly. Deliveries of equipment to site and Installation teams are co-ordinated through improved communication with the LPM. Installation managers monitor installation projects for time used compared to the initial planned hours. Pro-active steps are taken to clear out problems if it seems as though a project might overrun on man-hours booked.</p>	<p>Results:</p> <ul style="list-style-type: none"> • For 97/98: unplanned installation man-hours was reduced to 1%, equals a cost saving of R5'6m. • For 98/99, 15% less installation man-hours than planned, resulting in a cost saving of R5'9m. • The total cost saving on installation overtimes over 2 years to R11'5m

Table 2-1: Cost Reduction Benefits Cases Realised

This following Benefits Case (Table 2-2) was based on an opportunity to improve asset management:

More consistent site progress reporting:	
<p>Idea Identification: A study of Installation projects commercial reports revealed that 23% of projects were uninvoiced for 91 – 122 days. Working capital can be released by eliminating unnecessary delays in site progress reporting and reducing lead-time to invoicing.</p>	<p>Targets definition: In the 96/97 year, Installation activities accounted for R39'6m in turn over. 105 days lead time for invoicing $\pm 20\%$ of this (at 16% interest) = R365k in lost interest</p>
<p>Procedure: By establishing close co-operation between technical and commercial staff, roles & responsibilities in process activities were cleared out and more consistent site reporting were done. All installation supervisors aimed to have progress report ready by the 20th of each month, to allow commercials to bill by the 25th. The KPI's measured were the % unbilled contracts and the number of unbilled days.</p>	<p>Results:</p> <ul style="list-style-type: none"> • For 97/98: unbilled contracts reduced to 15% with unbilled lead time 90 days = R131k saving in interest costs • For 98/99: unbilled contracts reduced to 5% with unbilled lead time 60 days = R313k saving in interest costs • The total cost saving on more consistent site progress report = R444k

Table 2-2: Asset management Benefits Case Realised

Due to the optimisation efforts resulting from these 3 Benefits Cases, additional capacity was created within Installation & Commissioning. This additional capacity could be used to pursue more installation business and increase sales:

Extension Of Installation Business To All Equipment Orders:	
<p>Idea Identification: Due to capacity constraints, installation work was only offered to 40% of EWSD equipment sold to our biggest Key Account customers (FWKA). The initiatives of reducing catalogue times and reduction of overtime made capacity available, which could be sold to customers in the form of additional installation business.</p>	<p>Targets definition: Before 97/98 installation of transmission equipment was not offered to FW Key Account. The Key Account targeted to offer transmission installation business worth R7m annually to our FW customers with a net profit of R'95m. In addition FW Key Account targeted to increase EWSD installation work from 40% to 60%, which will increase annual turnover by R7'65m, and a profit of R1'03m.</p>
<p>Procedure: FW Key Account began to constantly offer this service competitively (due to the optimisation of our installation business) to our customer. Monthly turnover of Installation business was measured as a KPI.</p>	<p>Results:</p> <ul style="list-style-type: none"> • For 97/98, FW Key Account increased their turnover by R52'966m (because of additional installation business) with a profit of R12'894m. • For 98/99 additional installation work increased turnover by R57'182m (against 96/97) with a profit of R12'852m.

Table 2-3: Sales Increase Benefits Case Realised

These four examples not only illustrate the logic used for benefits case creation, but also how benefits cases are inter-linked and can effect each other. This is also a classic example of how an organisation can create more wealth from re-engineering efforts, instead of cutting costs through rationalising capacity.

2.5 EVA Opportunities Conclusion

Robert Kaplan made the following statement on performance measures: “Ideally, companies should specify how improvements in quality, cycle time, quoted lead times, delivery, and new product introduction will lead to higher market share, operating margins, and asset turnover or to reduced operating expenses. The challenge is to learn how to make such explicit linkage between operations and finance.” [24. Kaplan] It is this challenge that BPR, or any Change Management project is faced with: to make explicit links between operational improvements and financial benefits. The added dilemma is that such links must be postulated even before a BPR project is initiated, and the financial benefits must be forecasted in order to convince management that the BPR project will pay off.

Therefore, this chapter suggests that possible opportunities must be identified and categorised as sales increase, cost reduction, or asset management initiatives. A benefits case methodology must then be followed to ensure proper quantification, scoreboarding and measurement of opportunities realised. Once a formal procedure is used to identify and track benefits, it increases the credibility and chances of success for BPR.

3 Organisational strategy linked to BPR initiatives

3.1 Organisational strategy introduction

One of the principle teachings of any management handbook is that the objective of a company's management is to maximise the market value of the company. Specifically, the main objective should be to **maximise the wealth of its ordinary shareholders**. [3. CIMA] When formulating a company's strategy, the main targets are to improve the profit, in order to increase the shareholders earnings and dividends. The strategy must balance short term and long term objectives, as well as focussing on important non-financial objectives. Non-financial objectives would include:

- **The welfare of employees**, by trying to provide good wages and salaries, comfortable and safe working conditions, good training and career development, and good pensions.
- **The welfare of management**, even though decisions to improve the circumstances of management will incur expenditure that reduce profits, attracting and maintaining effective managers are critical for organisational success.
- **The welfare of the society as a whole**. As an example, the activities oil companies have a major effect on the environment and they have an obligation to provide for the well being of society by following safe practice.
- **The provision of a service**. Especially in the case of public companies, the main objective is to provide an essential service to the public.
- **The fulfilment of responsibilities towards customers and suppliers**. Quality services or products must be provided to customers and trading relationships must be maintained with suppliers.

A company should ideally try to balance all these objectives to ensure existence. For example: If a company only focus on its short term financial objectives being met by deferring capital investments, or spending small amounts on Research and Development or training, it can be to its long term decrement.

3.2 Chapter Objective

This chapter looks at how to set an organisational strategy by balancing financial and non-financial objectives. In the first section a brief description of Financial Performance Measurements will be given, explaining the reasoning behind financial objectives. The second paragraph is a summary paragraph about Hoshin planning, which is a method to look at setting non-financial objectives. The main topic of this chapter though is the Balanced Scorecard approach. This is a method of establishing

a balanced set of financial and non-financial objectives based on the organisational strategy and a method of achieving it by KPI measuring. This chapter's conclusion will look at how the Balance Scorecard can measure BPR success, as well as the reverse: how the Balanced Scorecard can be used as a vehicle to drive BPR implementation.

3.3 *Analysing financial strategy performance*

Studying a company's financial performance is the traditional way of assessing company performance. Market and shareholders' interest in the value of companies, usually cause future strategies to be based on activities that will influence financial performance. A company's value can be increased by [3. CIMA]:

- **Increase in share price on the stock market.** If the share price increase, the shareholders' wealth increases.
- **An increase in earnings**, which are the profits attributable to equity. Earnings Per Share (EPS) are the earnings attributable to each equity share.
- **If earnings and dividends increase, management can hope for an increase in the share price.** Shareholders benefit from higher share prices and higher dividends.
- **Dividends are the direct reward to shareholders that a company pays out**, thus dividends are evidence of a company's ability to provide a return for its shareholders.

Shareholders use Earnings per Share (EPS) and Price per Earnings (P/E) ratios to interpret the worth of share prices and the return expected from shares. Unfortunately the interpretation thereof is dependant on various 'things', in the words of Alan Abelson (1976) "...P/E's in a way like sausages – lots of stuff goes into the making of them, not all of it identifiable." [14. Fiber]

The main factors used by shareholders to evaluate the performance of a company, which managers set targets for improving are [2. Brealy et al]:

- **P/E ratio = Share Price / Earnings per Share** - The P/E-ratio are often looked at when to see what investors think of a share and what they are prepared to pay for each Rand of earnings. A high P/E ratio suggest that investors think the stock has good growth opportunities and its earnings are relatively safe. But then, it could also mean that earnings are temporarily low.
- **EPS growth = $(EPS_t - EPS_{t-1}) / EPS_{t-1}$** - EPS figures for consecutive years are compared with each other to determine EPS growth and thus company growth. [20. Hamman]
- **ROE = Net Profit after tax / Capital Employed** – This figure is a direct indication of the Return on Equity the shareholders are receiving, and the sustainability of this figure is of importance.
- **Sales to Net working Capital = Sales turnover / Capital employed** – the growth of this ratio indicates by how much this company have expanded and what is the growth in totality.

- **Net Profit Margin = Net Profit before Interest and Tax (EBIT) / Sales turnover** – this figure provide the total profitability of the company and by measuring the growth of this figure, the internal productivity of this company can be measured.

The following ratios are used by managers to establish a company's financial operation [2. Breal et al]:

- **Current ratio = Current assets / Current liabilities** – this is roughly a measurement of a companies cash reservoir.
- **Cash ration = (cash + short term securities) / Current liabilities** – this is an indication of a company's cashflow.
- **Sales turnover / Inventory** – this ratio gives an indication of how well the company manage its short-term assets, and if productivity is improving in this aspect.
- **Sales turnover / Debtors value** – this ratio also indicates the efficiency of the company, but especially in terms of cash management which is also connected to short term assets.

To make sense of these ratios, benchmarks are needed for assessing a company's financial position. Usually comparison to the previous year's ratios, or ratios of other firms in the same business will make sense.

This is the conventional way of assessing company performance, by studying its financial results. Financial ratios seldom provide answers, but they do help to ask the right questions. They are direct measurements of a company's value, but to base company strategy on only financial ratios, is dangerous because it is based on historical data. To set a strategy and drive improvement, companies need to look at operations that effect the future. Over the last two decades, commentators have built up a case to suggest that such a single focus is myopic, because financial plans, goals and outcomes are influenced by the values, beliefs and behaviours of the people who make up the organisation.

3.4 Hoshin Planning

Management of an organisation has as one of its principal responsibilities the task to set the direction of the organisation for the future and to move the entire organisation into that future. The most effective way to set the future direction is to develop a shared vision of what the organisation will be in the future, contrast it to the way the organisation is now, and then create a plan for bridging the gap: the Strategic Plan. The challenge is to implementing this Strategic plan. For this purpose some organisations have made use of a concept called Hoshin Planning.

Developed in Japan in the 1960s, Hoshin Planning is a management system for determining the appropriate course of action for an organisation, and effectively accomplishing the relevant actions and results. The original Japanese concept: Hoshin Kanri, translated literally means direction needle management, administration or deployment. [8. Oakland et al]

Hoshin Planning help to

- Determine **Critical Success Factors** of the Strategic Plan,
- Establish **long-range Goals**,
- **Prioritise** Improvement Actions, and
- Set Improvement **Targets**.

[39. Brecker] Once an organisation has defined its vision, it needs to set a number of goals, which when achieved, would realise this vision. To achieve these goals, an organisation has to set strategic directions and initiate improvement projects to achieve its goals. The X-Matrix below is used to ensure the **alignment** of annual business plans and annual improvement projects with strategic directions.

	X	X			X	Introduce new safe driver program	X																	
X	X	X	X		X	Improve customer satisfaction to 90%		X		X														
X		X	X			Reduce underwriting losses 5%		X	X	X	X	X	X											
X	X	X	X		X	Reduce property quotation time 30%						X												
Improve financial performance	Continue sales growth	Expand personnel capabilities	Utilize leading edge technologies	Comply with regulations	Continually improve levels of cust. sat.	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Annual Improvement Plans 3-5 Year Plan Targets Benefits </div>	Expand auto mkt share in South 30%																	
							Reduce high risk auto mkt share NJ 25%	X																
							Reengineer claims process, <50% time																	
							On-line national claims database																	
							Develop customer fire hazard self-audit																	
							Reengineer appraisal process, <50% time																	
							Reevaluate flood prone areas																	
							Expand inner city property market 10%																	
							Reduce legal suppliers 33%																	
							Expand commercial auto mkt 25%																	
	X		X		X	greater customer satisfaction		X	X	X	X				X									
X	X		X		X	lower costs	X	X	X	X	X	X			X	X								
		X	X		X	greater employee satisfaction		X			X			X										
X		X	X			better public image								X										

Figure 3-1 The Hoshin Planning matrix [39. Brecker]

This Hoshin Planning matrix helps to identify:

- Which were the activities critical to attaining the goals;
- Which of the existing improvement activities were already aligned with the goals;
- Which goals were not going to be achieved without realigning effort;
- How to prioritise the improvement effort.

When focussing on the goals, all stakeholders in the organisation namely: revenue customers, employees, the general public, and shareholders must also be considered. Each goal has a measure, and each measure a target, which is challenging, yet achievable. Figure 3-2 below illustrates such goal deployment right down to process level.

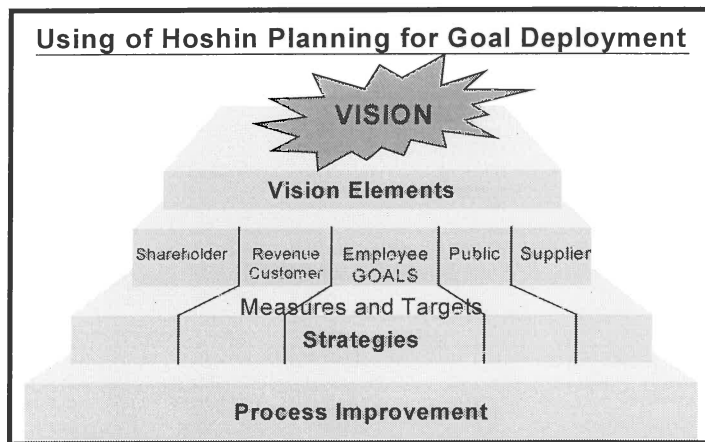


Figure 3-2 Hoshin Planning Goal Deploying [8. Oakland et al]

Top management need to gain buy-in and involvement from the lower levels of the organisation. This is done with a "catch-ball" process, which helps to achieve **consistency** with other levels in the organisation. The next-level-down managers have to take the goals and measures developed by top management and develop a set of strategies to achieve these goals. If they are unable to set strategies to impact the measures given, then this is feedback to the higher level management. Figure3-3 below illustrates the two-way communication required throughout the organisation about goals, measures and strategies. The strategies of one layer of management became the goals of the next level down.

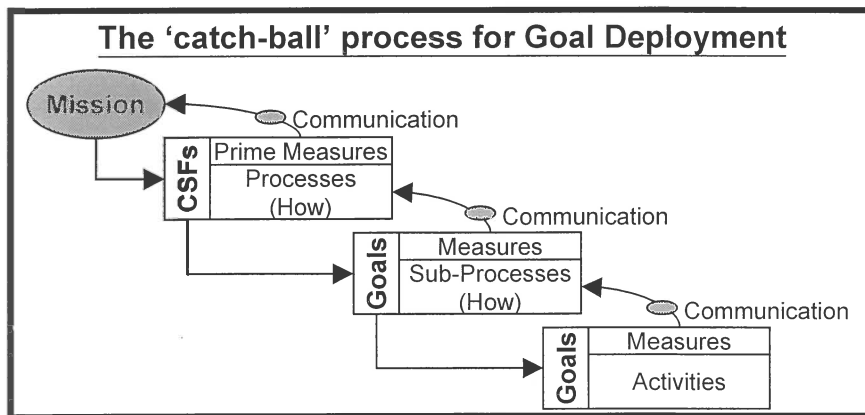


Figure 3-3 Catch-ball process for Goal deployment [8. Oakland et al]

3.5 The Balanced Scorecard approach

What you measure is what you get. Senior executives understand that their organisation's measurement system strongly affects the behaviour of managers and employees. This causes the concern of measuring the performance of those objectives that will help an organisation obtain its vision.

It is known that traditional financial accounting measures like return-on-investment and earnings-per-share can give misleading signals about continuous improvement and innovation. Financial measures are widely criticised because of their backward-looking focus, and their inability to reflect pro-active value-creating actions.

Intense global competitiveness force organisations to search for new systems of performance measuring. A 1998 study by the Gartner Group found that "at least 40 % of Fortune 1000 companies will implement a new management philosophy...the Balanced Scorecard... by the year 2000." [48. US Dept. of Commerce]

The balanced scorecard is a conceptual framework for translating an organisation's strategic objectives into a set of performance indicators distributed among four perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth. [24. Kaplan]

It maintains critical financial measures that tell the results of actions already taken. But it complements the financial measures with operational measures on customer satisfaction, internal processes, and the organisation's innovation and improvement activities, which are operational measures that are the drivers of future financial performance.

Some indicators are maintained to measure an organisation's progress toward achieving its vision; other indicators are maintained to measure the long term drivers of success. Through the balanced scorecard, an organisation monitors both its current performance (finance, customer satisfaction, and business process results) and its efforts to improve processes, motivate and educate employees, and enhance information systems—its ability to learn and improve.

Robert Kaplan, professor of Accounting at Harvard Business School, and David Norton, president of an information technology consulting firm (Nolan, Norton & Company Inc.) were the creators of the balanced scorecard. In their first article about the balanced scorecard in 1992 they associated it with the dials and indicators in an aeroplane cockpit. For the complex task of navigating and flying an aeroplane, pilots need detailed information about many aspects of the flight. They need information on fuel, air speed, altitude, bearing, destination, and other indicators that summarise the current and predicted environment. Reliance on one instrument can be fatal. [24. Kaplan]

In the same way the balanced scorecard brings together, in a single management report, many of the seemingly disparate elements of a company's competitive agenda: becoming customer oriented, shortening response time, improving quality, emphasising teamwork, reducing new product launch times, and managing for the long term. In addition it also guards against sub-optimisation. By forcing

senior managers to consider all the important operational measures together, the balanced scorecard lets them see whether improvement in one area may have been achieved at the expense of another.

3.5.1 The four perspectives of the Balanced Scorecard

The balanced scorecard allows managers to look at the business from four important perspectives.

It provides answers to four basic questions:

1. How do customers see us? (customer perspective)
2. What must we excel at? (internal perspective)
3. Can we continue to improve and create value? (learning and growth perspective)
4. How do we look to shareholders? (financial perspective)

3.5.1.1 *Customer Perspective: How should we appear to our customers?*

Many companies today have a corporate mission that focuses on the customer, for example "To be number one in delivering value to customers". The balanced scorecard demands that managers translate their general mission statement on customer service into specific measures that reflect the factors that really matter to customers. Customers' concerns tend to fall into four categories: time, quality, performance and service, and cost.

- Lead-time measures the time required for the company to meet its customers' needs.
- Quality measures the defect level of incoming products as perceived and measured by the customer. Quality could also measure on-time delivery, the accuracy of the company's delivery forecasts.
- The combination of performance and service, measures how the company's products or services contribute to creating value for its customers.

To put the balanced scorecard to work, companies should define goals for time, quality, and performance and service and then translate these goals into specific measures.

3.5.1.2 *Internal Business Perspective: What business processes must we excel at?*

Customer-based measures are important, but they must be translated into measures of what the company must do internally to meet its customers' expectations. After all, excellent customer performance derives from processes, decisions, and actions occurring throughout an organisation. Managers need to focus on those critical internal operations that satisfy customer needs. The second part of the balanced scorecard gives managers that internal perspective. The internal measures for the balanced scorecard should come from the business processes that have the greatest impact on customer satisfaction, such as factors that affect cycle time, quality, employee skills, and productivity.

Companies should also attempt to identify and measure their organisation's core competencies, the critical technologies needed to ensure continued market leadership. Since much of these operations take place at the department and workstation levels, managers need to decompose cycle-time, quality, product, and cost measures to operational levels. That way, the measures link top management's perception about key internal processes and competencies to the actions taken by individuals that affect overall corporate objectives. This linkage ensures that employees at lower levels in the organisation have clear targets for actions, decisions, and improvement activities that will contribute to the company's overall mission.

3.5.1.3 Learning and Growth: How will we sustain our ability to change and improve?

The customer and internal business process measures on the balanced scorecard identify the parameters that the company considers most important for competitive success. But the targets for success keep changing. Intense global competition requires that companies make continual improvements to their existing products and processes. Only through the ability to launch new products, create more value for customers, and improve operating efficiencies continually, can a company penetrate new markets and increase revenues and margins, which cause growth and increase in shareholder value. The company estimates specific rates of improvement for on-time delivery cycle time, defect rate, and yield. An example of learning, or improvement would be to measure process defects, missed deliveries, and scrap, and to aim to reduce it by a factor of ten over four years. These targets emphasise the role for continuous improvement in customer satisfaction and internal business processes.

3.5.1.4 Financial Perspective: How should we appear to our shareholders?

Financial performance measures indicate whether the company's strategy, implementation, and execution are contributing to bottom-line improvement. Financial measures can be simple, yet relevant: Cash flow indicates survival, success is measured by quarterly sales growth and operating income by division, and prosperity by increased market share by segment and return on equity.

Critics of financial measures might argue that the terms of competition have changed and that traditional financial measures do not improve customer satisfaction, quality, cycle time, and employee motivation. But, financial performance is the result of operational actions, and financial success should be the logical consequence of doing the fundamentals well. Thus the argument state that by making fundamental improvements in their operations, the financial numbers will take care of themselves. Though, making the assumption that financial measures are unnecessary is incorrect for at least two reasons. A well-designed financial control system can enhance, rather than inhibit an organisation's total quality management program. More important, however, the assumed linkage between improved operating performance and financial success is actually quite tenuous and uncertain.

If improved performance fails to be reflected in the bottom line, executives should reassess the basic assumptions of their strategy and mission. Not all long-term strategies are profitable strategies.

Measures of customer satisfaction, internal business performance, and growth and improvement are derived from the company’s particular view of the world and it’s perspective on key success factors. But that view is not necessarily correct. Even an excellent set of balanced scorecard measures does not guarantee a winning strategy. The balanced score card can only translate a company’s strategy into specific measurable objectives. [24. Kaplan]

Periodic financial statements remind executives that improved quality, response time, productivity, or new products benefit the company only when they are translated into improved sales and market share, reduced operating expenses, or higher asset turnover. Thus the reactive financial perspective is the true test to the pro-active customer, internal, and growth and learning perspectives.

The illustration below indicates how the four perspectives link.

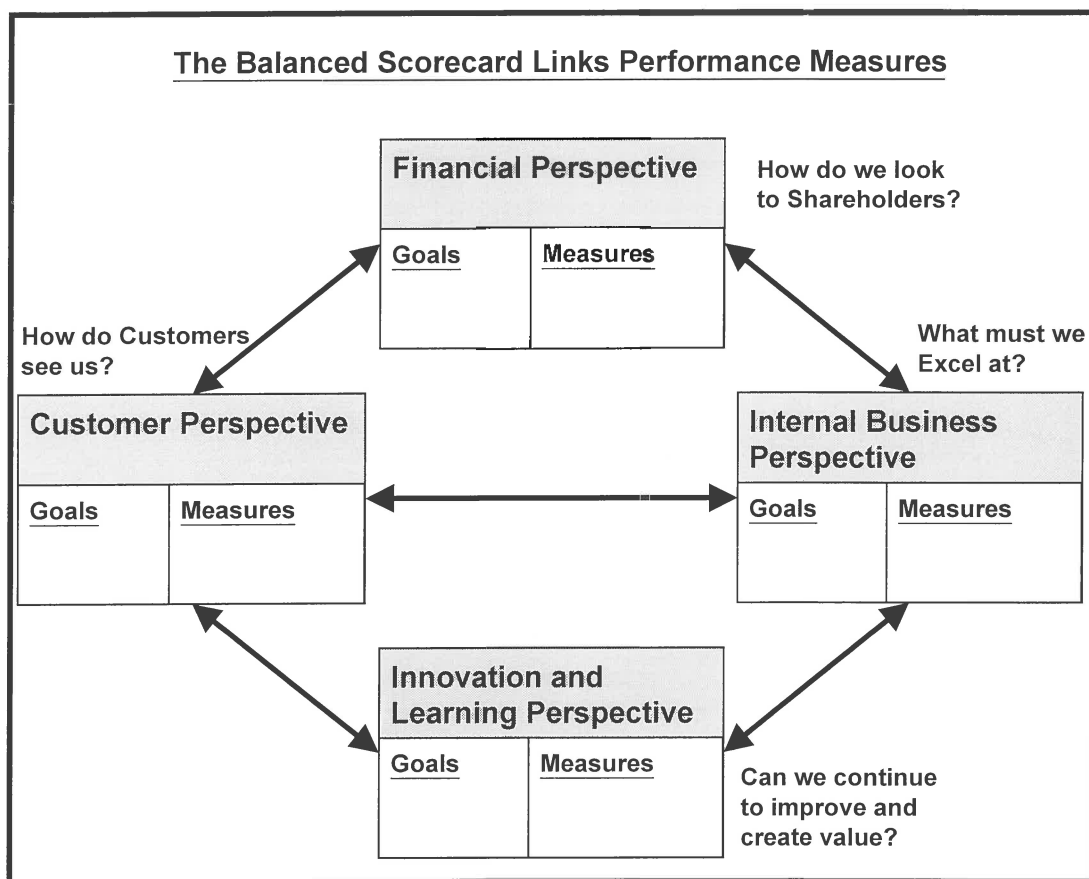


Figure 3-4 Four perspectives of the Balance Scorecard [24. Kaplan et al]

In the example of Sietel’s Installation and Commissioning department, they had the following goals for the four Balanced Scorecard perspectives:

- Customer satisfaction must be ensured through completing projects on time, and having no defects when final acceptance testing is done.
- Internal Process objectives were to reduce the amount of overtime spend on projects through better activity planning and improved interaction with logistics processes.

- As a Learning and Growth objective Installation and Commissioning was to constantly reduce their standard times required to perform installation activities.
- The Financial objective was to reduce cost overruns on projects because of overtime paid.

Figure 3-5 illustrates these objectives in Balanced Scorecard fashion, with related KPI's for each objective.

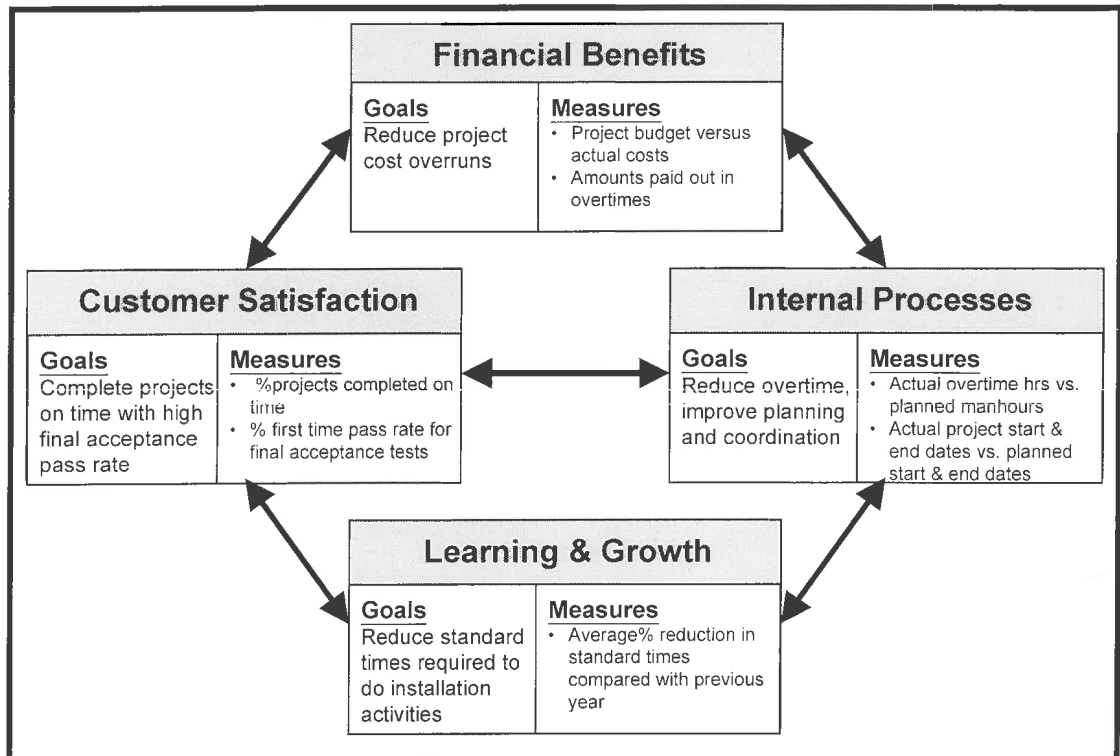


Figure 3-5 Installation & Commissioning objectives in Balanced Scorecard fashion.

3.5.2 Implementation Method for the Balanced Scorecard

The US department of commerce have set down the following 3-step procedure for implementing a balanced scorecard within their procurement agency [48. US Dept. of Commerce]

3.5.2.1 *Define Organisational Vision, Mission, and Strategy*

Firstly the Balanced Scorecard methodology requires the creation of a vision, mission statement, and strategy for the organisation. This ensures that the performance measures developed in each perspective support accomplishment of the organisation's strategic objectives. It also helps employees visualise and understand the links between the performance measures and successful accomplishment of strategic goals.

The key, as pointed out by Kaplan and Norton, is to first identify where you want the organisation to be in the near future.

3.5.2.2 *Develop Performance Objectives, Measures, and Goals*

Next, it is essential to identify what the organisation must do in order to attain the identified vision. For each objective that must be performed well, it is necessary to identify measures and set goals covering a reasonable period of time.

The organisation's vision must be translated into a set of performance objectives distributed among four perspectives: Financial, Customer, Internal Business Processes, and Learning and Growth. Some objectives are maintained to measure an organisation's progress toward achieving its vision. Other objectives are maintained to measure the long term drivers of success. Through the use of the Balanced Scorecard, an organisation monitors both its current performance, and its ability to learn and improve. Figure 3-6. below indicates matrices used in the Balanced Scorecard methodology to help develop objectives and measures. The matrices are relatively straightforward and easy to understand. However, developing the contents of each matrix is the hard part. [26. Kaplan et al]

When creating performance measures, it is important to ensure that it link directly to the strategic vision of the organisation. The measures must focus on the outcomes necessary to achieve the organisational vision and the objectives of the strategic plan. When drafting measures and setting goals, ask whether or not achievement of the identified goals will help achieve the organisational vision.

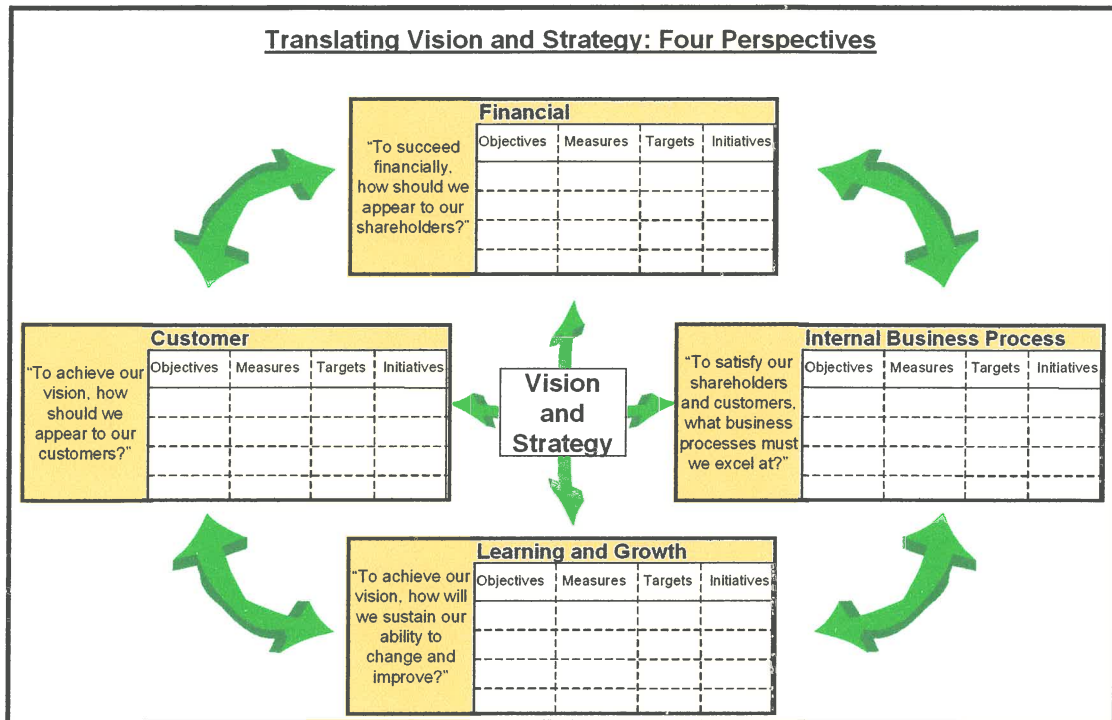


Figure 3-6 Matrices to develop Balanced Scorecard perspectives [26. Kaplan et al]

Each objective within a perspective should be supported by at least one measure that will indicate an organisation’s performance against that objective. Define measures precisely, including the population to be measured, the method of measurement, the data source, and the time period for the measurement.

When developing measures, it is important to include a mix of quantitative and qualitative measures. Quantitative measures provide more objectivity than qualitative measures. They may help to justify critical management decisions on resource allocation (e.g., budget and staffing) or systems improvement. An organisation should first identify any available quantitative data and consider how it can support the objectives and measures incorporated in the Balanced Scorecard. Qualitative measures involve matters of perception, and therefore of subjectivity. Nevertheless, they are an integral part of the Balanced Scorecard methodology. Judgements based on the experience of customers, employees, managers and contractors offer important insights into operational performance and results. Achieving a balance among quantitative and qualitative factors (as well as among process-oriented and results-driven measures) is crucial in developing a valid Balanced Scorecard methodology.

3.5.2.3 *Evolve With Experience*

Finally, it takes time to establish measures, but it is also important to recognise that it might not be perfect the first time. Implementing a Balanced Scorecard is an evolutionary process that requires adjustments as experience is gained in the use of its performance measures.

3.5.3 Critical Success Factors (CSF) for implementing a Balanced Scorecard

An organisation's environment, values and behaviours will govern how easy or difficult it will be to successfully implement a balanced set of performance measures. The following paragraphs will highlight critical success factors that must be reckoned with during the design, implementation and use of a Balanced Scorecard.

3.5.3.1 Culture

Michael Morrow, of KPMG, warns of potential scorecard implementation barriers because of:

"managers...who were reluctant to drop the old financial measurement regime and a danger that initial euphoria (about the scorecard) will evaporate if the culture of the company is one that always expects instant results." [28. McCunn]

3.5.3.2 Commitment

A Balanced Scorecard needs to be endorsed by top management, particularly the Chief Executive. Robert Kaplan described how he diplomatically says he is too busy to help if anyone other than the CEO rings up to ask for his help in implementing a scorecard. This is not arrogance or conceit on Kaplan's part - he recognised that *"...assigning a task force won't get the job done. In organisations that have been successful, the new scorecard was viewed as a key strategic initiative by the chief of that business unit."* [25. Kaplan et al]

3.5.3.3 Design

Two of the main design features which commentators say should promote successful scorecard implementation are:

- Involvement of senior managers in the design,
- and linkage of the scorecard to the company's strategic direction.

Michael Morrow stresses the importance of giving busy managers time to agree what is needed and also allowing them freedom to customise their own scorecard to be more relevant to the division where they work. [38. Athena Consulting]

3.5.3.4 Implementation and Use

Kaplan himself takes the view that *"the balanced scorecard is most successful when it's used to drive the process of change."* He cites, amongst others, the experience at Barclays Bank, where they found the scorecard to be invaluable as a means of reaching consensus, during a change period, on what were the priority areas for achievement and improvement. [25. Kaplan et al]

The table below is a roadmap for Balanced Scorecard implementation by Athena Consulting. It identifies Critical Success Factors for a Balanced Scorecard with ideal situations and actions that can be taken to ensure CSF are addressed.

A Roadmap for Introduction of a Successful Balanced Scorecard within Financial Services

STEP	IDEAL SITUATION (Key issues only)	COMMENTS (If ideal situation not present)
Understand your company's characteristics · eg. the need to consider the needs of all stakeholders	Be a large company, employing more than 5,000 staff. Have been implementing Total Quality for at least 4 years	There is nothing you can do in the short term about these situational factors. However, you can understand how the underlying issues might be relevant to your company -
↓		
Recognise your company's culture · program	Company inclined to take "the long view" Has a future, rather than past, orientation	Discuss with senior managers the need for a Strategic Review including a refocus of Mission, Vision, Values. Consider launch of TQM, including management behaviours.
↓		
Gain buy in and commitment from key managers	Chief Executive visibly committed and using scorecard Other senior managers and "key influencers" actively use it	Ensure CEO sincere initial buy in. Ask CEO to personally launch. Ensure commitment widely publicised. Ask key influencers to help design
↓		
Design scorecard appropriately	Managers are involved in scorecard design and refinement Scorecard relevant to function Focus on "what" to measure not "how" it should be delivered	Carefully choose design team. Test relevance (to level and function) at all times. Allow time for refinement. "Ride hard" on those seeking sophisticated IT solutions
↓		
Implement carefully and use effectively	Use scorecard to drive through change Consider scorecard as part of wider management system Use to set meetings agenda	Test use deployment and understand reasons where scorecard not being used. Ensure scorecard quadrants enter company vocabulary

Table 3-1 A Roadmap to implementing the Balanced Scorecard [38. Athena]

3.5.4 Balanced Scorecard operation as a Management System.

Once an organisation adopted and implemented a balanced scorecard, Kaplan and Norton suggest the introduction of four new management processes that, separately and in combination, contribute to linking long-term strategic objectives with short-term actions. These four management processes are illustrated in figure 3-7 below.

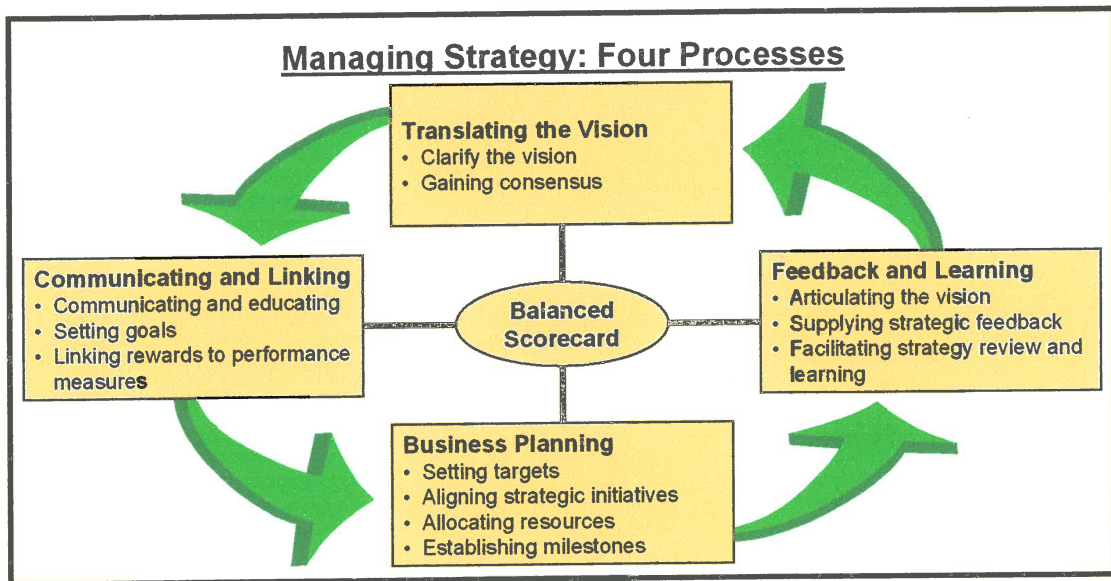


Figure 3-7 The Balanced Scorecard Operation processes [26. Kaplan et al]

3.5.4.1 Translating the vision

Even if a group of top managers agree on every word in a vision statement, each manager may still have a different definition for the words and phases in the vision. This first process helps managers build a consensus around the organisation's vision and strategy by developing operational measures for the four perspectives of the balanced scorecard. For people to act on the words in the vision and strategy statements, those statements must be expressed as an integrated set of objectives and measures that describe the long-term drivers of success. Thus creating a balanced scorecard force senior managers to arrive at a consensus and then to translate their vision into terms that have meaning to the people who would have to realise the vision.

3.5.4.2 Communicating and linking

The Balanced Scorecard signals to everyone what the organisation is trying to achieve for its shareholders and customers, but to align employees individual performances to the strategy, the following three activities must be done:

- **Communicating and Educating** – From management's side, they need to initiate a broad based communication program to share with all employees the strategy, with the critical objectives that have to be met, if the strategy is to succeed. In return business units can quantify and communicate their long term strategies to senior executives using similar comprehensive sets

of linked financial and non financial measures. These measures will form the basis for feedback and accountability.

- Setting Goals – Senior Management has to do more than merely create awareness of corporate goals, they have to translate the goals down to operating units and individual levels. Business Unit, departmental and even individual scorecards can be used to disseminate corporate goals into the organisation.
- Linking Rewards to Performance measures - Tying financial compensation to performance is a powerful lever, and some companies have moved quickly to establish such a linkage to reward balanced scorecard performance. As attractive and as powerful as such linkage might be, it nonetheless carries risks. For instance, does the company have the right measures on the scorecard.

3.5.4.3 *Business Planning*

The very exercise of creating a balanced scorecard forces organisations to integrate their strategic planning and budgeting processes and therefore helps to ensure that budgets support strategies. To do business planning, scorecard users (senior executives or departmental managers) must select measures of progress from all four-scorecard perspectives and set targets for each. Then they have to determine which actions will drive them toward their targets, identify the measures they will apply to those drivers, and establish the short-term milestones that will mark their progress along the strategic paths they have selected. At the end of the business planning process, managers should have set targets for the long-term objectives they would like to achieve in all four scorecard perspectives. They should also have identified the strategic initiatives required and allocated the necessary resources to those initiatives. Finally scorecard users have established milestones for the measures that mark progress toward achieving their strategic goals. Building a scorecard thus enables a company to link its financial budgets with its strategic goals.

3.5.4.4 *Feedback and Learning*

The capability that the scorecard should give senior managers is the ability to know at any point in its operation, whether the strategy they have formulated is, in fact, working, and if not, why. The first three management processes – translating the vision, communicating and linking, and business planning – are vital for implementing strategy, but they are not sufficient in an unpredictable world. Together they form an important single-loop-strategic-learning process. Strategic learning consists of gathering feedback, testing the hypotheses on which strategy was based, and making the necessary adjustments. The Balanced Scorecard approach facilitates strategic learning in three ways:

1. First, it articulates the company's shared vision, defining in clear and operational terms the results that the company, as a team, is trying to achieve.

2. Second, the scorecard supplies the essential strategic feedback system. A business strategy can be viewed as a set of hypotheses about cause-and- effect relationships. A strategic feedback system should be able to test, validate, and modify the hypotheses embedded in a business unit's strategy.
3. Third, the scorecard facilitates the strategy review that is essential to strategic learning.

The balanced scorecard, with its specification of the relationships between performance drivers and objectives, allows corporate and business unit executives to periodically evaluate the validity of the unit's strategy and the quality of its execution.

3.6 Linking organisational strategy to BPR conclusion

This chapter started of by looking at traditional financial measurements used to rate strategic organisational performance. The industry concern is that this type of measurement is myopic and reactive. Hoshin Planning on the other hand, is a strategy deployment methodology that focuses on more areas than just shareholders interest. It also provide means of disseminating strategy into the organisation and getting feedback on strategy achievement, but it does not suggest the necessary links between operational objectives and financial performance. The Balanced Scorecard is a strategy mobilisation philosophy that balance internal operation efforts with customer satisfaction and ultimately financial performance. It translates organisational vision into operational objectives and goals for four perspectives: customer perspective, internal perspective, learning and growth perspective, and financial perspective. KPI measurements from the lower level units in the organisation provide feedback on the ability to meet the operational objectives and goals. Testing operational performance against financial wellbeing checks the soundness of the organisational strategy and if the correct approach is being followed.

From the paragraph on CSF for implementing a Balanced Scorecard, it was implied that the implementation of a Balanced Scorecard and BPR strongly compliments each other. Kaplan states that "*the balanced scorecard is most successful when it's used to drive the process of change*". [25. Kaplan et al] McCunn called the Balanced scorecard "*The Trojan Horse*" for change projects. [28. McCunn] As mentioned Balanced Scorecard implementation cause:

- A culture change – the traditional means of measuring performance does not apply anymore and managers are required to take a new perspective on their business.
- Indicates top management commitment – if the CEO himself is interested in how internal business processes measures and how it improves, it indicates serious interest in optimisation.
- Communication of business objectives – by reaching consensus on, and translation of the vision into operational objectives, the organisation gains understanding in the reasons for change.

- Designing of appropriate KPI's – by being involved in defining objectives and measures for departmental scorecards, managers have to report back on KPIs that focuses on process improvement, which is also one the main outcomes of BPR.

These are all enablers to create an ideal situation for BPR.

On the other hand, Kaplan states that the process of building a balanced scorecard, clarifying the strategic objectives and then identifying the few critical drivers, also creates a framework for managing an organisation's various change programs. Initiatives such as BPR, employee empowerment, total quality management, among others promise to deliver results, but also compete with one another for scarce resources, including the scarcest resource of all: senior managers' time and attention. [25 Kaplan et al] Once the strategy is defined and the drivers are identified, the Balanced Scorecard influences managers to concentrate on improving or re-engineering those processes most critical to the organisation's strategic success.

When implemented, the Balanced Scorecard's four perspectives are direct measures on BPR initiatives. Re-engineering success should reduce lead-times and costs, and improve productivity, quality and service performance of critical process. This will be indicated in measures of the internal business, and learning and growth perspectives, as well as spin-offs on customer perspectives. Measures on financial performance should align with the benefits cases for BPR.

Thus, by creating the ideal framework for BPR, and focussing on KPIs, the Balanced Scorecard most clearly links and aligns re-engineering actions with strategy.