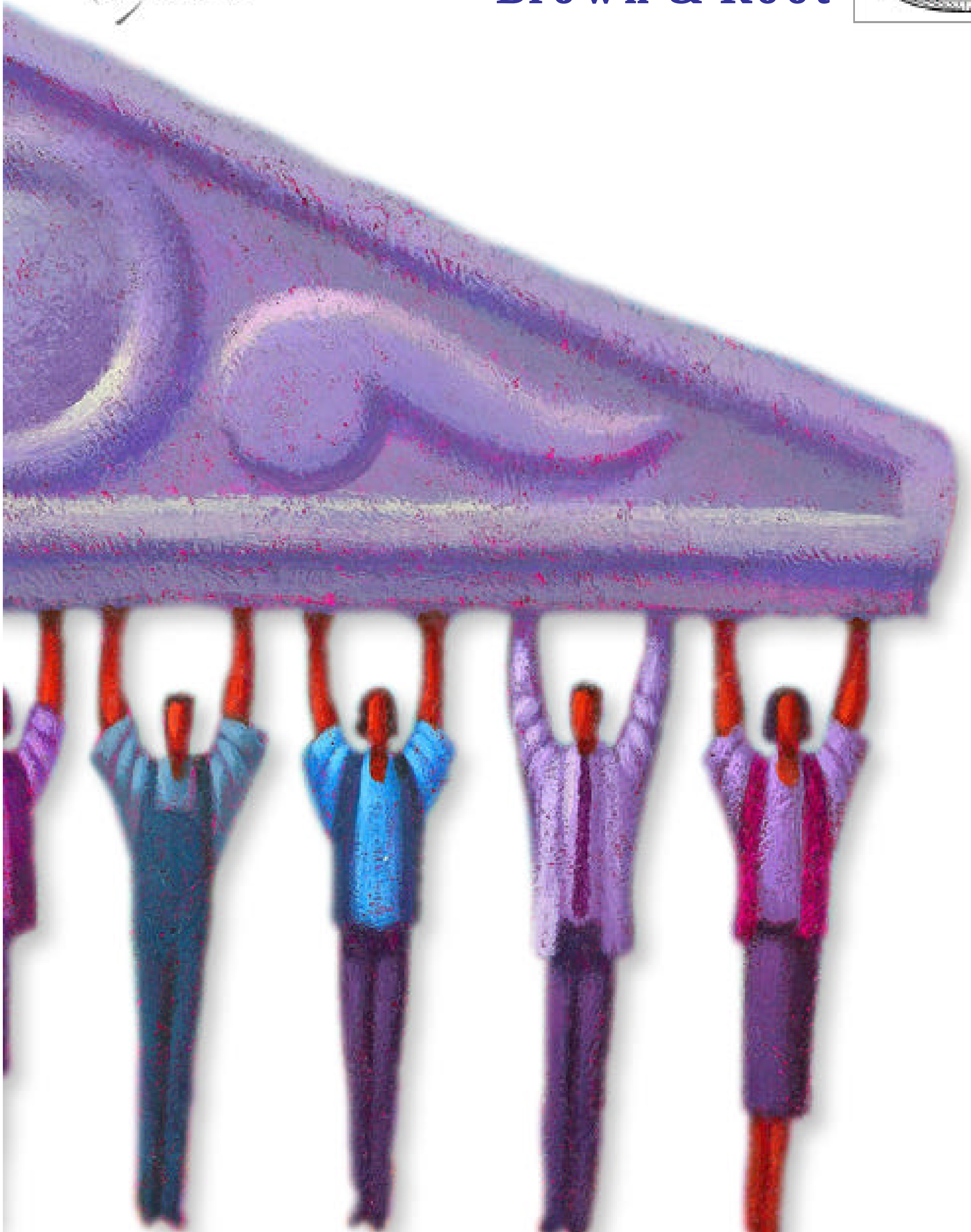
BALANCED SCORECARD COLLABORATIVE

Brown & Root



Brown & Root

Brown & Root Case Abstract

In the cold climate of the North Sea off the coast of Scotland, competition and costs were rising for Brown & Root's marine oil rig construction and service contracts business. The company had recently merged, and inefficiency and duplication of effort contributed to the confusion between six Brown & Root sub-companies. There was no regard for the customer's bottom line. Company President Norm Chambers saw an opportunity to use the Balanced Scorecard as a tool for integrating the company's offerings. Brown & Root began to market high-margin solutions that simultaneously lowered the customer's overall expense. Today, Brown & Root is a value-added, integrated solution provider that bills on the basis of economic value delivered to its customers. In three years, Brown & Root moved from losing money to becoming #1 in its industry niche, with a net income increase of 30%.

Brown & Root exemplifies the following principles of a Strategy-Focused Organization:

- Translate the strategy to operational terms
- Align the organization to the strategy

Brown & Root Case Report

In 1993, Brown & Root faced the following challenges:

Competition and costs were rising for marine oil well construction and service contracts.
Inefficiencies, duplications and confusion existed at the interfaces between six B&R sub-companies, all of whom were separately involved in bidding for pieces of oil drilling site contracts.
B&R sub-companies were historically paid for their inputs, not their outputs; costs were simply passed on to the customer without regard for the customer's bottom line.

A Change in Strategy

Brown and Root had a 75-year history in marine construction and other projects, and in that sense was a historic market leader. However, in 1993, the company felt increased competitive price pressure in the development of oil field facilities and did not see itself as a leader in innovative pricing or service delivery.

Brown and Root's then general manager, Norm Chambers, decided to change the business strategy from focusing on cost inputs to focusing on solution outputs -- from being a collection of sub-companies that provided separate oil and gas development services on a cost-plus basis, without much regard for the customer's value chain -- to being a value-added integrated solution provider that billed on the basis of measurable economic value delivered to customers. The goal was to integrate the services of the separate B&R companies into one seamless whole as far as the customer was concerned.

A Way to Measure the Future

As a result of this strategic change, Chambers felt that they needed significant changes in the way they measured performance. In particular, he wanted to have strategic measures that embraced their new solution delivery model and which tracked the drivers of increased net present value for their customers. In other words, they needed leading indicators such as the Balanced Scorecard provided, rather than simply the traditional lagging financial indicators. "We wanted to think about our future without being victims of our past. If our objective is to get to the future, and if our business mission, vision and strategy describe that future, and if we believe that performance measurement influences what we achieve, then the performance measurement should be linked directly to the business strategy," said Chambers. Chambers saw an opportunity to use the Balanced Scorecard as a template for integrating their six sub-company offerings into integrated, high-margin solutions that would lower the customer's overall expense.

Brown and Root's strategic measurement system is organized in a fashion similar to the classic strategy map that underlies a Balanced Scorecard. The difference is that while a strategy map shows linked objectives for accomplishment within each of the four business perspectives (Financial, Customer, Internal and Learning & Growth), the B&R measurement system model shows linked categories of measurement, each of which has one or more measures that impact an equivalent business objective.

B&R elected to pursue a set of strategic business objectives that were organized around the four Balanced Scorecard perspectives. These objectives embraced the integrated service model that was viewed as key to a successful future in their marketplace.

These objectives were then translated into a corporate strategy scorecard that became the pattern for all of the six sub-companies to follow, each according to its local requirements, but with an eye toward unified solution delivery.

Financial Results

In its first year of operating with its Balanced Scorecard-based, integrated service strategy, Brown and Root (B&R) increased its total revenues and the percentage of these revenues from integrated contracts.

In the Andrews Development Project (see “Internal Results” below), Brown and Root not only generated better-than-market margins for four of its SBU's, but also added $40 Million in gain-sharing profits from this one project to their usual $200 Million in annual profits.

Bottom line: Net income from doing integrated development solutions
increased to 30% of all revenue.

Customer Results

The Win Rate for customer contract proposals increased from 0% for integrated solution contracts to almost 50% of their business, growing at 40% per year. Alliance-based contracting proved to be a strategic advantage.

Internal results

As one example of success with their integrated service strategy, British Petroleum chose B&R to be the manager of an integrated team of seven different companies (4 B&R companies; 3 independent companies) to bring the new Andrew Development (oil field) in the North Sea on-stream. Brown and Root committed to making it the most successful project in the history of North Sea development work.

Using the Balanced Scorecard as an integrating framework to align the objectives of all the alliance companies, B&R succeeded in completing the new field development work six months ahead of the completion schedule and $150 Million (30%) under budgeted projections.

In offshore drilling projects, the fastest startup time to actual oil shipment previously was 30 days, with an industry average of 90 days, and at a typical cost of $250,000 per day. Brown and Root completed one offshore well hook-up in 1.5 days, breaking the industry record by more than an order of magnitude.

Aligning Brown & Root's six sub-companies

Brown and Root (B&R) Energy Services employed a corporate Balanced Scorecard to align the scorecards of its six sub-companies. Inefficiencies, duplications and confusion existed at the interfaces between these six companies, all of whom were separately involved in bidding for parts of oil drilling site contracts. Therefore, the B&R Energy Services division developed three strategic themes around which all six sub-companies should rally in the creation of integrated service solutions:

- Developing Relationships with Clients
- Developing the Appropriate Skills and Systems
- Creating the Market

As an example of "Creating the Market", the financial perspective for this theme identified a new objective: Increase revenue from services that involve multiple operating companies.

The theme of "Creating the Market" was developed to cause a different kind of conversation with their customers. In other words, instead of proposing services for a fee, they began to talk with customers about adding value in such a way that B&R would not get paid until their customer got paid for the production of hydrocarbons that resulted from B&R's site installation. This was a built-in incentive for B&R service teams to reduce installation cycle time.

Making Strategy Everyone's Job

B&R established a core curriculum of education modules through which over 1000 employees across the six sub-companies were taken in order to produce a common nomenclature, a unified business perspective and set of management tools for organizing integrated service solutions. The Balanced Scorecard was a centerpiece of this awareness-building and training program. "[Brown & Root's Balanced Scorecard-based training curriculum] brought an ability for us to think about clarity and about teaming in a way that we hadn't been able to think about it before," said Chambers.

Creative new scorecard measures themselves became a "hugely important communication tool," according to Chambers, because they focused leadership minds on performance possibilities that had never been thought possible (such as reducing offshore well commissioning from 30 days to 1.5 days).

The measures themselves were derived from a new perspective on how business was to be conducted, i.e., not "I'm a well-driller and you're an oil field owner", but "We're a partnership trying to extract hydrocarbons at the least possible cost, for the financial benefit of both parties". When this new paradigm for business operation was communicated to the leadership of the six sub-companies and to customer leaders, some on both sides were incredulous but nevertheless intrigued and attracted by the creative possibilities for saving and gain-sharing millions of dollars in traditional development costs.

Chambers made it clear that his people needed to think "both internally and externally about what we're trying to do". In other words, they needed to think continuously about service delivery and cost from their customer/partner's point of view. An example of how this creative measurement approach eventually evolved can be seen in Chambers' chart of performance measurements used in Brown and Root's parent organization, Halliburton Energy Services—a company over which Chambers was later made President. Included in this chart are metrics such as "Investment Efficiency NPV (net present value)" and "Increase in Partner's Asset Value," reflecting the dollars saved for the customer through efficient integrated service delivery by B&R.

Strategy

Capability Evolution

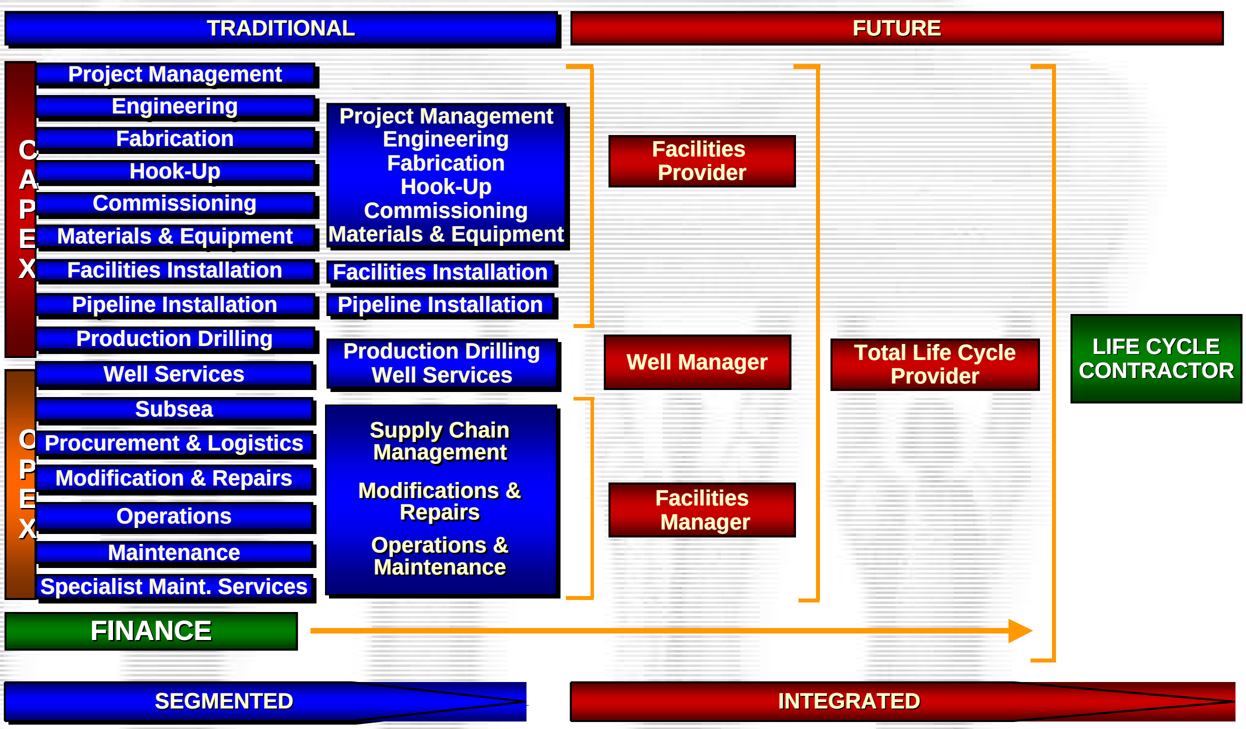


Exhibit 6-4: Brown & Root Energy Services Balanced Scorecard

Perspective	Objective	Measure
Financial	❑ Increase Revenue from Integrated (cross-business) Services	• % Revenues from Integrated Projects
Customer	❑ Build Strong Relationship ❑ Lower Total Life Cycle Costs	• Customer Satisfaction • Integrated Life Cycle Cost
Internal	❑ Create New Market Opportunities	• # of Contracts That Integrate Two or More Operating Companies
	❑ Create New Service Opportunities	• # of Integrated Services That Have Been Created
	❑ Create Integrated Management Capabilities	• Milestones in Achieving Specific Management Systems for Integrated Capability
	❑ Become Low-Cost Producer	• Product Cost vs. Benchmarked Target
Learning & Growth	❑ Develop Incentives for Customer Teaming	• % Projects with Customer Gain Sharing
	❑ Develop Culture of Systems Integrator	• Employee Survey on Awareness and Acceptance of New Cultural Values

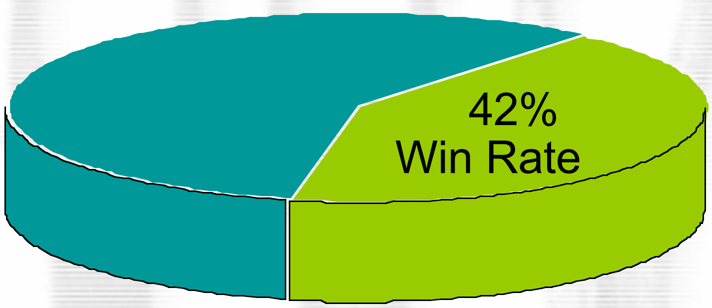
Change in Revenue Mix and Growth

	1994	1995 Target
Revenue from Integrated Contracts	11%	30%
Revenue from Segmented Contracts	89%	70%

Revenue Growth → 33% Increase

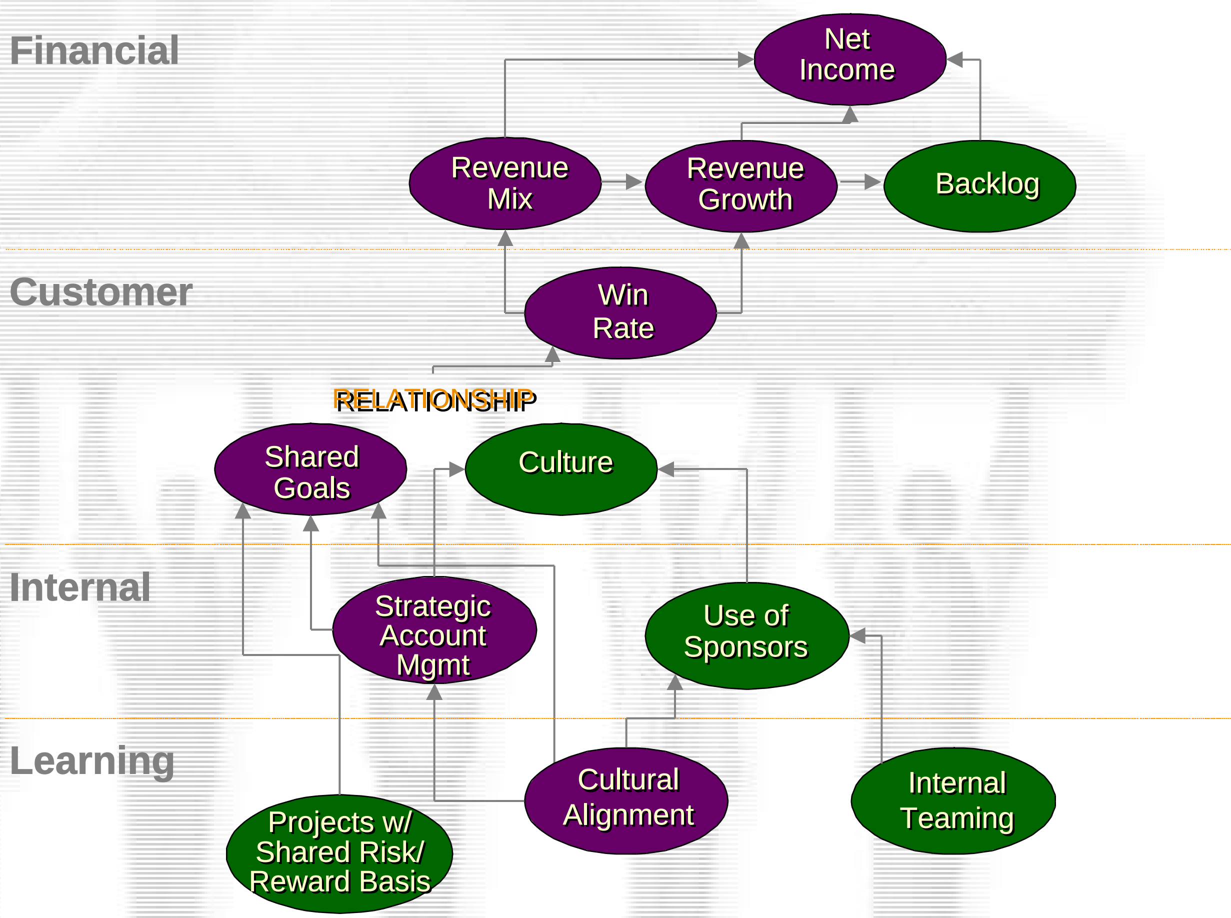
Measure - Our Win Rate on Targeted Jobs

- Aim to win 50% of all targeted

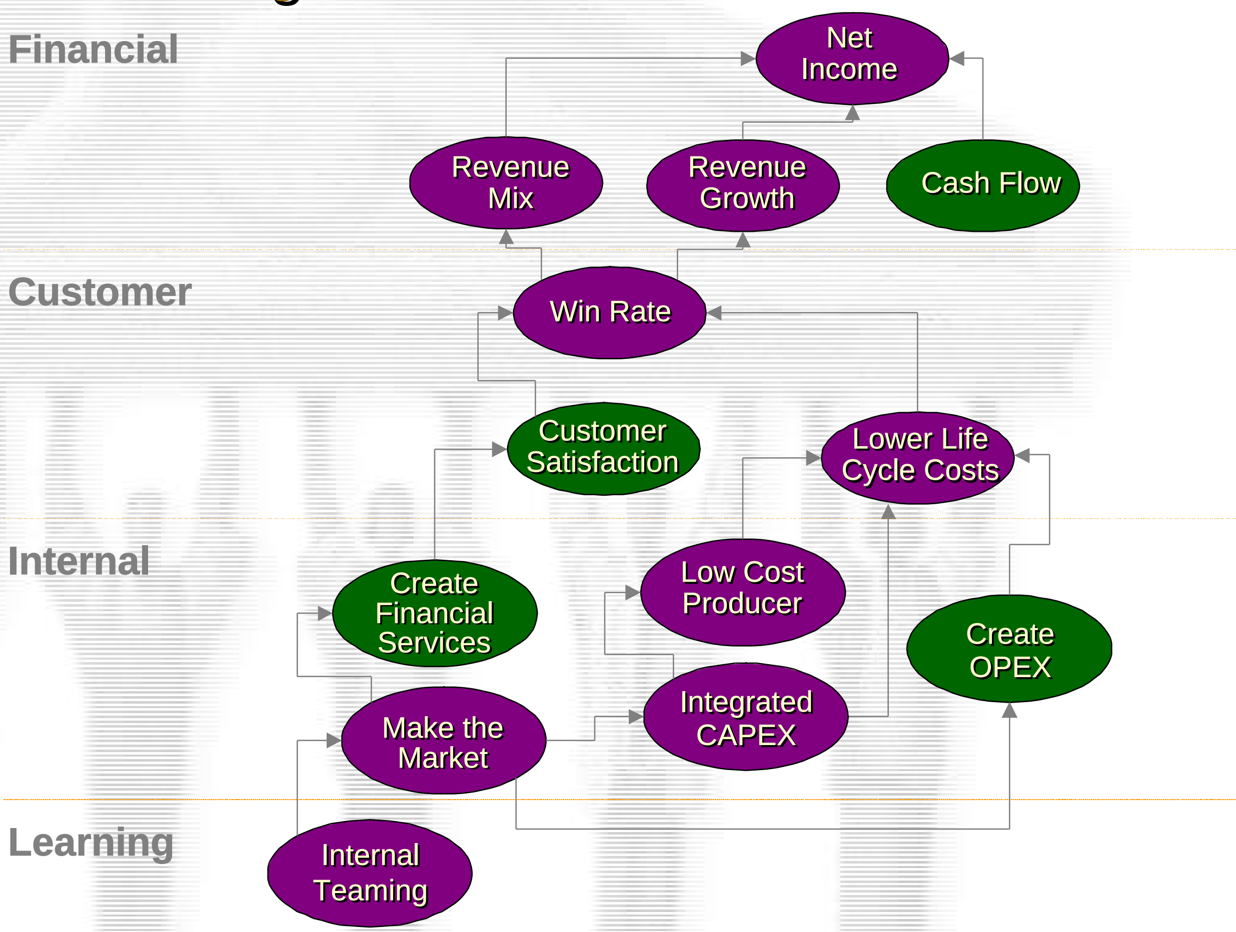


October 1994 achievement

Relationship Development



Creating the Market



Core Competency Program Modules

Focus on the future → Improving personal effectiveness → Planning and managing your job →

Personal impact workshop → Creating value for customers → Managing self and others →

Measuring business performance → Managing Change → The role of the manager →

Creating competitive advantage → Inter cultural management → Managing business risk

HED Performance Measurements

FINANCIAL

1998 Actual Plan Variance	
1998 Operating Income	$18m
IRR Average	18%
NPV of New Projects	>$120m
Investment Efficiency NPV (10.5)/Total Investment	>20
# of Deals (>$100 million Capex)	67

CUSTOMER

1998Actual Target Variance	
Increase of Partner's asset value	$120m
Acquisition cost (including promotes) /Net development cost	<50%
Repeat business opportunities	6
Deals with commercial and/or technical innovation yielding minimum of 2% improvement in IRR	2

INTERNAL

1998 Actual Target Variance	
$/Bbl development cost/Industry benchmark	<90%
$/Bbl operating cost/industry benchmark	<90%
Realized NPV/Planned NPV	>100%
1998 Total Administration cost	$27.8m
Value of pull through (% of Capex)	30%

INNOVATION and LEARNING

1998 Actual Target Variance	
Deal NPV/Deal Acquisition cost ($120m/$27.8m)	>4.5
# of ongoing relationships with key E&P companies	15
% Performance Contracts completed	100%
Crosstraining weeks/employees	2