

Information Technology:

Strategic Prioritization and Resource Allocation: Approach Overview Summary

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Approach

A stepwise approach is proposed to be taken in accomplishing this objective that will

- Provide a foundation for “quick wins”
- Inherently demonstrate the competitive advantage of the proposed organizational strategic prioritization capability
- Assist the socialization/institutionalization of the underlying model through effective communication to move the organization to a state of overall “IT Savvy”

Underlying the approach is the following sequence of steps using a “spiral approach” that builds outward from a small core of solid results/early wins.

- **Step 1:** Implementation of an IT investment “discriminator model” that at cascading levels of detail/resolution can detect IT investment/alignment anomalies at the business segment, business product, and cross-segment/line of business levels as mapped against business strategy and best in class competitors
- **Step 2:** Development of a high acuity IT investment model at the business segment and business product level that provides a multi-dimensional view of IT in the context of
 - TCO
 - investment profile in applications, applications support, and infrastructure
 - RTB/CTB with resolution into investments in support of revenue (grow revenue, protect revenue, avoid cost, reduce cost, manage risk, innovation, etc)
 - IT investment quality as measured by current systems in terms of FQ (Functional Quality – suitability of systems for intended purpose) and TQ (Technical Quality – how efficient and maintainable is the system)
- **Step 3:** Establishment of an overall framework that enables the codification of key business performance levers at the business segment and product levels which further identifies the key IT levers that impact the business levers as a basis for the construction of the full ROIT model; Integration with the business planning process

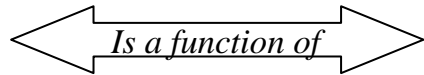
Strategic Prioritization Model Concepts

Underlying the success of the entire project and obtaining the envisioned competitive advantage through technology leverage is the foundational concept that IT is key lever in attaining optimal business performance. Therefore the creation of a cognitive model as a basis for business interaction, communication, and engagement is key.

A tentative high level model of the whole business performance system is shown below (as there is no standard model in fact the model illustrated is in itself a basis for business discussion and engagement:

Business Performance

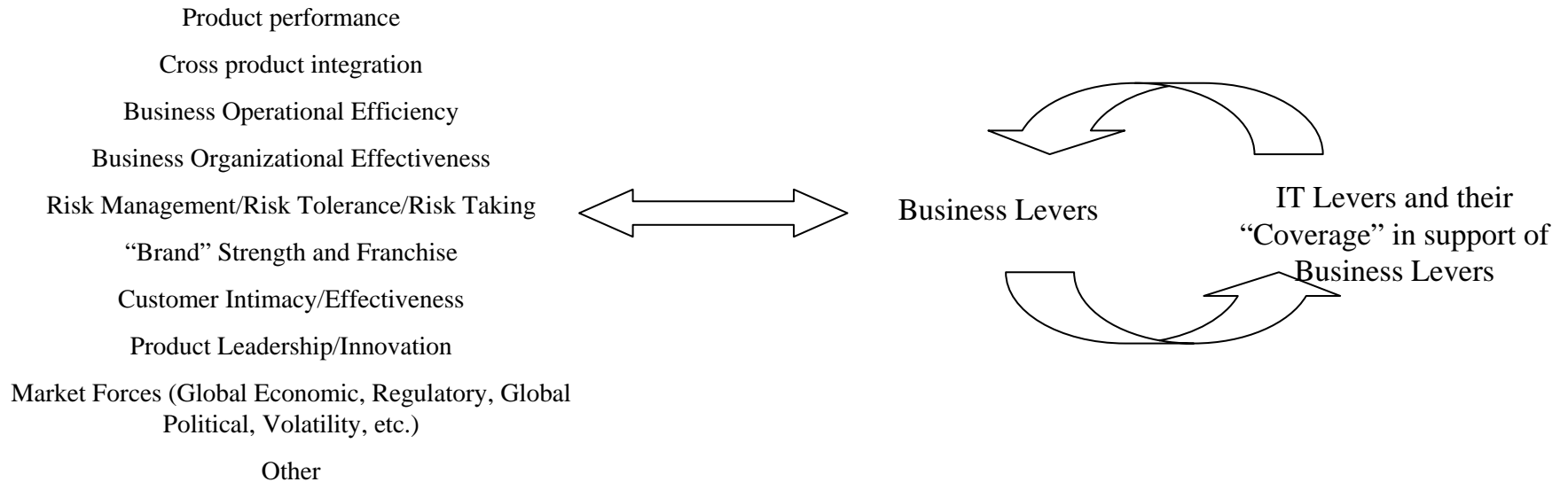
Typically measured in terms relating to shareholder value, revenue growth, profitability, ROE, ROA, etc.



Product performance
Cross product integration
Business Operational Efficiency
Business Organizational Effectiveness
Risk Management/Risk Tolerance/Risk Taking
“Brand” Strength and Franchise
Customer Intimacy/Effectiveness
Product Leadership/Innovation
Market Forces (Global Economic, Regulatory, Global Political, Volatility, etc.)
Other

Strategic Prioritization Model Concepts (2)

Critical to this project is identifying the business levers for each business performance driver and identifying the IT levers that enable and impact the business drivers (in addition to any IT levers that are pure business drivers themselves).



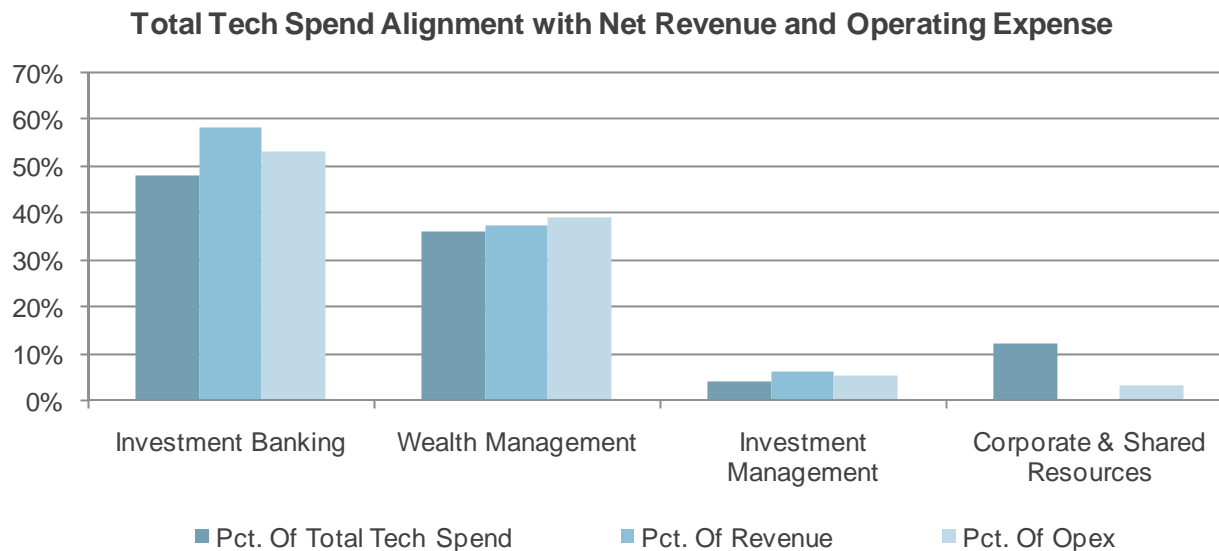
Step 1

Investment Alignment, Distribution, and “Discriminator” Model

Step 1 Implementation for Quick Wins

At the highest level, it is possible to create an IT investment level and alignment discriminator on a business segment level that is an indicator of opportunities for investment realignment

For example, a study of one financial services firm indicated that across their lines of business IT investment was not well aligned with sources of revenue particularly in their Capital Markets segment by product segment



Step 2 Implementation for Quick Wins

It is also possible to create IT investment “Heatmaps” at the product level which compare investment levels with top performing investment patterns on the “street”

Benchmark Profile of Most Profitable Products 2006

<i>Product</i>	IT Spend as % of Revenue	Production Spend as % of Revenue	Production as % of IT Spend
Structuring	10.4%	5.9%	56%
Rate Products	8.9%	2.7%	31%
Structured Products	9.3%	4.9%	53%
Credit Products	10.4%	3.9%	37%
Global Proprietary Trading	9.0%	2.7%	30%
Commodities Trading	9.7%	4.7%	48%
Cash Business	8.4%	3.2%	38%
Equity Derivatives	8.8%	2.8%	31%
Equity Proprietary	9.2%	4.9%	53%
Prime Services	8.2%	2.1%	26%
Convertibles	8.8%	3.2%	37%
M&A and Strategic Advisory	9.8%	4.9%	50%
Corporate Bank	7.8%	2.8%	36%
Research Product	9.3%	4.6%	50%
Institutional Securities	9.2%	4.0%	44%
Other	8.8%	3.7%	42%

Investment Heatmap Production			
IT Spend as % of Revenue	Production Spend as % of Revenue	Production as % of IT Spend	
Structuring	1.2	0.9	0.9
Rate Products	1.0	0.9	0.8
Structured Products	0.9	2.2	1.3
Credit Products	1.0	1.1	1.2
Global Proprietary Trading	1.1	1.0	1.0
Commodities Trading	1.4	1.0	1.0
Cash Business	1.0	0.9	1.5
Equity Derivatives	1.2	1.0	1.0
Equity Proprietary	1.0	1.0	0.9
Prime Services	1.0	0.5	1.0
Convertibles	1.3	1.1	1.0
M&A and Strategic Advisory	1.1	1.1	0.8
Corporate Bank	1.2	0.6	1.0
Research Product	0.9	1.0	1.2
Institutional Securities	0.9	1.0	1.1
Other	0.1	1.5	0.9

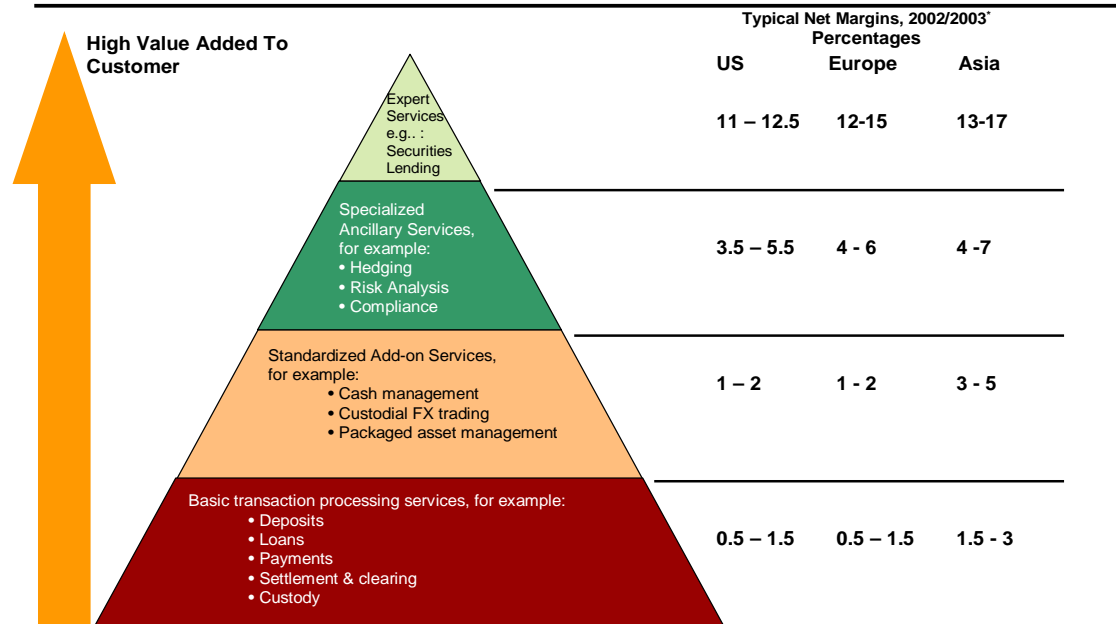
Step 2

Business Segment and Product Level Investment Model

Step 2 Business Segment and Product Driver Model

Within a business segment, one of the key steps is to “follow the money” – where and how is money made and what are the drivers

Follow the Money



^{*}Institutional Investor, Financial Times, TowerGroup, OECD Banking Statistics, FRB, BoE

Step 2 Business Segment and Product Driver Model

It is possible to produce business driver maps which link strategic goals and key levers

Business Goals (sample)

	Maintain the Franchise	Grow Prod, Mkt, Client Coverage	Understand the Client	Improve the Client Experience	Improve Internal Performance	Reduce Costs	Manage Credit, Mkt, Trading Risk	Work Smarter	Be in Control
Systems Infrastructure	Extreme	Low	Low	Low	Extreme	None	Moderate	Strong	Strong
New Prod, Trade/Risk Mgmt, Event	Strong	Extreme	None	Low	Low	None	Moderate	Moderate	Moderate
Risk / P&L Reporting	Moderate	None	None	None	Moderate	Low	Moderate	Moderate	Moderate
Confirmations	Strong	None	Moderate	Strong	Strong	Low	None	Strong	Extreme
CDO Risk Management	None	Moderate	None	None	Low	None	Moderate	Low	Moderate
PCD-SPT Risk Management	Low	None	None	None	Moderate	Low	Moderate	Low	Strong
Program Management / Bus Analysis	None	None	None	None	None	None	None	Strong	Moderate
NA Rates Industry Initiatives	Low	None	None	Low	None	Moderate	Moderate	None	None
Collateral Managed Trades	None	Extreme	None	None	None	Extreme	None	None	None
Debt Prime Brokerage	Low	Strong	None	Strong	Extreme	None	None	Low	None
Munis NAPA Implementation	None	Moderate	None	Moderate	Moderate	Low	Low	Low	None
NA Rates Concorde System Enhancement	Moderate	Moderate	Low	None	Moderate	Low	Moderate	None	None
NA Rates Consolidated Risk	None	None	None	None	None	None	Strong	None	None
MBS Repo Build Out	None	Extreme	None	Moderate	Strong	None	Moderate	Moderate	None
MBS Product Integration	Strong	Extreme	None	Strong	Moderate	None	Moderate	Moderate	None
Aqueduct Investments	Low	Low	Strong	None	Strong	Moderate	Moderate	Strong	Strong
DCM Origination Build Out - TRCOMPS	Strong	Moderate	Strong	None	Low	Low	Low	Strong	None
EMEA DCM Initiatives	Low	Low	Strong	Moderate	Moderate	Low	None	Moderate	Moderate
DCM Orig Build Out - Rapid App	Low	Low	Moderate	None	Low	Low	None	Low	None
Secondary Loan Trading Initiatives	Moderate	Moderate	Extreme	Moderate	Strong	Low	Extreme	Strong	Strong
SETE FTI Program	None	Moderate	None	Moderate	Moderate	Extreme	Low	Strong	Strong
Trade Capture & Trade Management	Strong	Extreme	None	None	None	None	Low	Moderate	Strong
EOD	Moderate	None	None	None	Strong	None	Moderate	Moderate	Strong

IT
Tactical
Levers
(sample)

IT Impact

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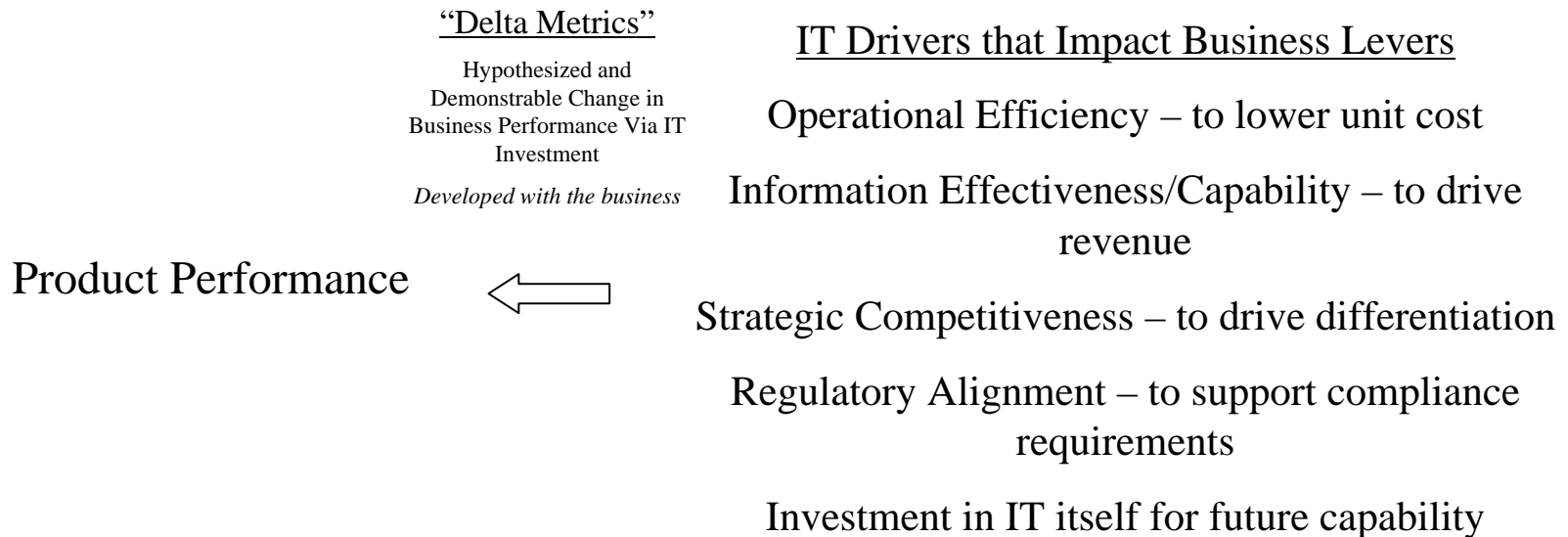
Step 2 Business Segment and Product Driver Model

It is also possible to drill down below the business driver level to determine the IT drivers and the coverage of those drivers

From a portfolio vantage point the “as is” state of coverage of each of these levers can be assessed and codified versus best in class performers and desired “end state” as specified by the business

This model can similarly be driven up to the Business Segment level and applied to the Cross Business Product, Operational Efficiency, Organizational Effectiveness, Risk Management, and other levels

The end-goal is to produce a coverage map of the key IT levers and how they support and interact with the full spectrum of business levers at each level and a set of metrics that describe and model the potential for business performance improvement (“Delta Metrics”)



Step 2 Business Segment and Product Driver Model

In conjunction with the IT Driver coverage mapping, additional and powerful complementary views of the IT investment portfolio can be created to provide a higher resolution and “benchmarkable” IT investment profile

These views provide a 360 degree perspective on IT investment and support to the business levers

IT Investment Quality View

Functional Quality

Technical Quality

IT Investment Portfolio View

Run the Business

Change the Business

Or

Protect Revenue

Grow Revenue

Avoid Cost

Reduce Cost

Manage Risk Compliance

R&D and Innovation

IT Drivers that Impact Business Levers

Operational Efficiency – to lower unit cost

Information Effectiveness – to drive revenue

Strategic Competitiveness – to drive differentiation

Regulatory Alignment – to support compliance requirements

IT Cost of Goods View

Application TCO

Infrastructure TCO

Application Resource Consumption

Infrastructure Resource Consumption

IT Investment Tactical View

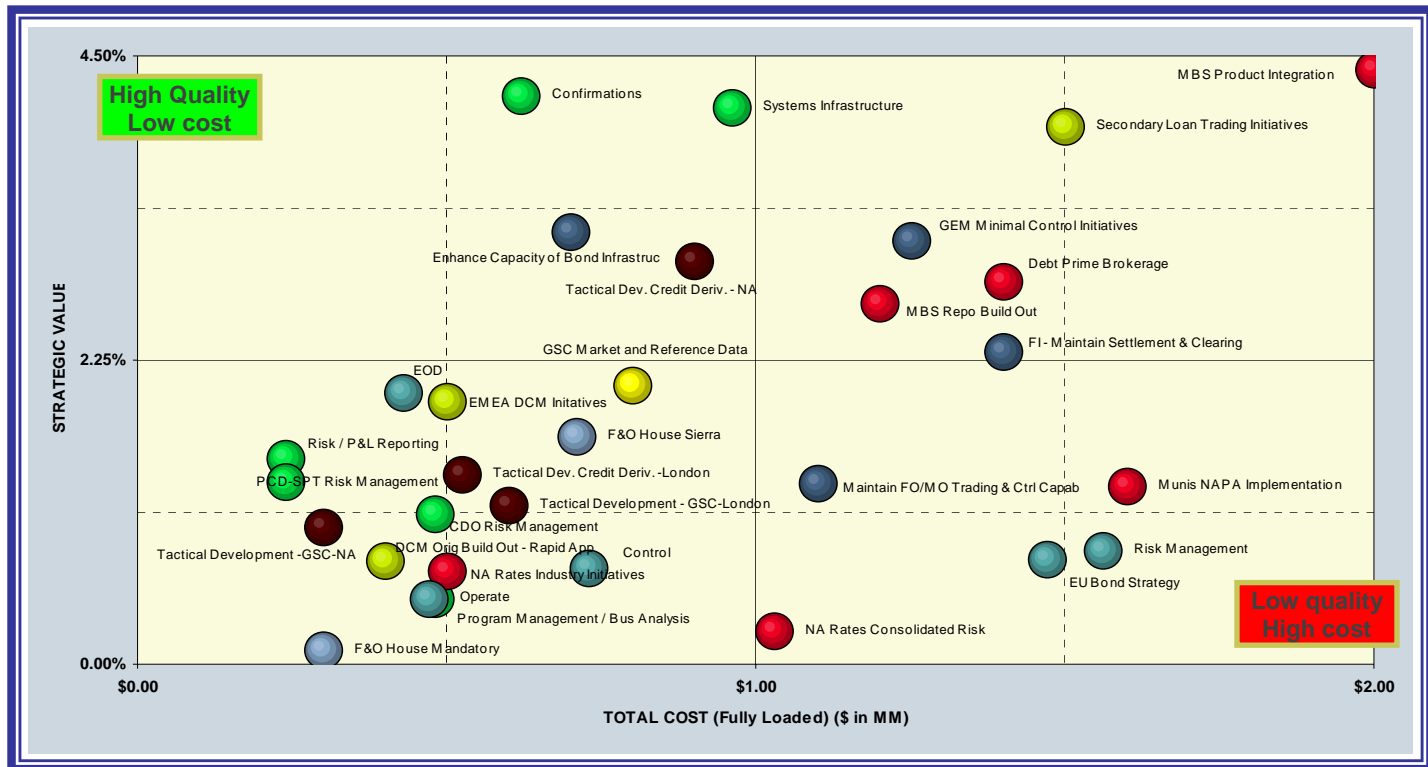
Application Development Spending

Applications Maintenance Spending

Application Infrastructure Spending

Step 2 Business Segment and Product Driver Model

Quick wins are also attainable from this step through the analysis of investment quality which supports the retirement, replacement, or introduction of new applications



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Step 3

ROIT as Part of Business Priority Setting

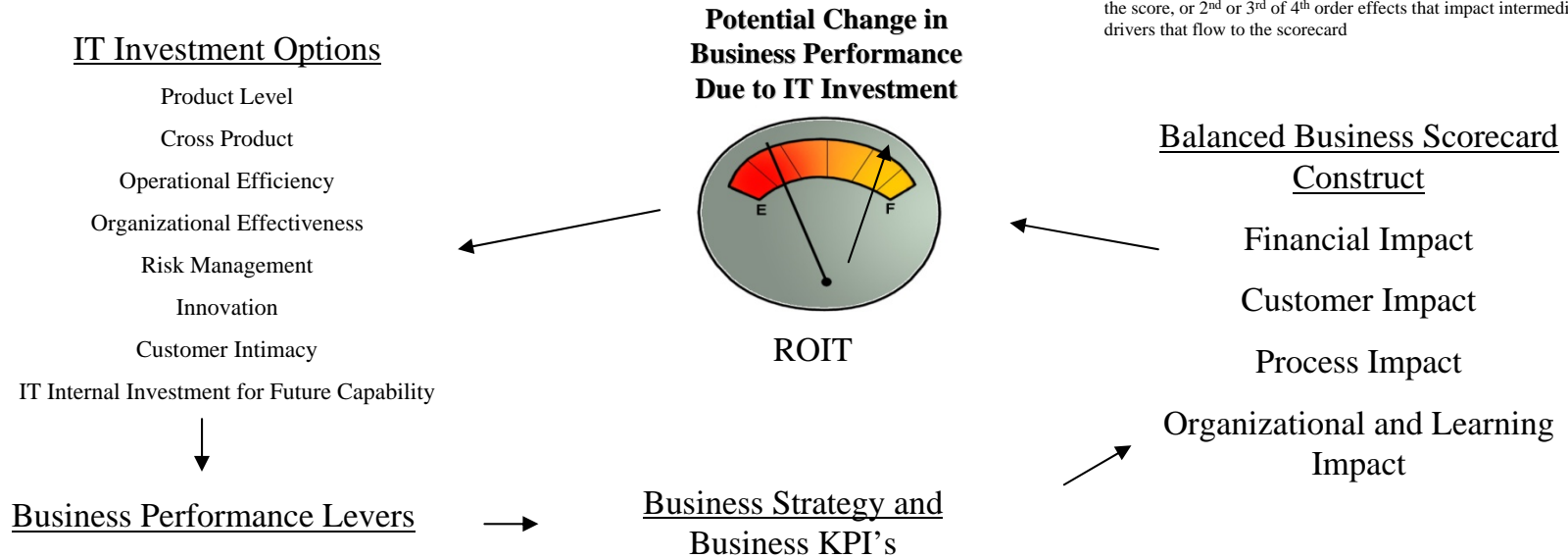
Step 3 Integrating ROIT with Business Priority Setting

While Step 1 and Step 2 are being enacted it is critical that communications and collaborative education programs be undertaken to move the entire enterprise to a new level of IT Savvy in which the basic cognitive models of the interaction of business performance, the suite of business drivers, and IT contribution/leverage is more fully understood and embraced.

Step 3 focuses on creating and integrating a model of IT investment on a level playing field of all investments the enterprise may opt to make or at minimum improving the precision of IT investment

The basic ROIT model schematic is shown below. It is both a framework for envisioning IT impact on business levers and a basis for the new mathematics of technology investment – it links IT investment directly to the enterprise's balanced scorecard and KPI's

Note: IT investments make have 1st order impacts which directly flow to the score, or 2nd or 3rd of 4th order effects that impact intermediate drivers that flow to the scorecard



Critical Project Steps

Creation of shared understanding, language, and model framework to describe the project

Creation of a communication program to raise the level of IT Savvy while the project is underway so that the business and IT will be prepared to assimilate the results and integrate them into the overall planning processes

Build detailed plan and deliverable artifacts

Identify initial area of focus so that a spiral implementation can take place successfully

- Product areas
- IT areas
- IT stakeholders
- Business stakeholders