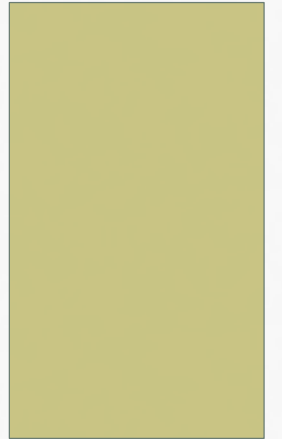


DATA ANALYTICS

DR. BRENDA MULLALLY



BUSINESS PERFORMANCE MANAGEMENT

- **Performance measurement system**

A system that assists managers in tracking the implementations of business strategy by comparing actual results against strategic goals and objectives

- Comprises systematic methods of setting business goals together with periodic feedback reports that indicate progress (or lack thereof) against goals

PERFORMANCE MEASUREMENT KPIs AND OPERATIONAL METRICS

- **Key performance indicator (KPI)**

A KPI represents a strategic objective and metric that measures performance against a goal

- Distinguishing features of KPIs

- Strategy

- Targets

- Ranges

- Encodings

- Time frames

- Benchmarks

PERFORMANCE MEASUREMENT

- **Key performance indicator (KPI)**

Outcome KPIs vs. Driver KPIs

(lagging indicators (leading indicators
e.g., revenues) e.g., sales leads)

- Operational areas covered by driver KPIs
 - Customer performance
 - Service performance
 - Sales operations
 - Sales plan/forecast

PERFORMANCE MEASUREMENT

- Problems with existing performance measurement systems
 - The most popular system in use is some variant of the balanced scorecard (BSC)
 - 50-90% of all companies implemented BSC
 - BSC methodology is a holistic vision of a measurement system tied to the strategic direction of the organization and based on a four-perspective view of the world:
 - Financial measures supported by customer, internal process, and learning and growth metrics

PERFORMANCE MEASUREMENT

- The drawbacks of using financial data as the core of a performance measurement:
 - Financial measures are usually reported by organizational structures and not by the processes that produced them
 - Financial measures are lagging indicators, telling us what happened, not why it happened or what is likely to happen in the future
 - Financial measures are often the product of allocations that are not related to the underlying processes that generated them
 - Financial measures are focused on the short term returns

"Financial myopia"

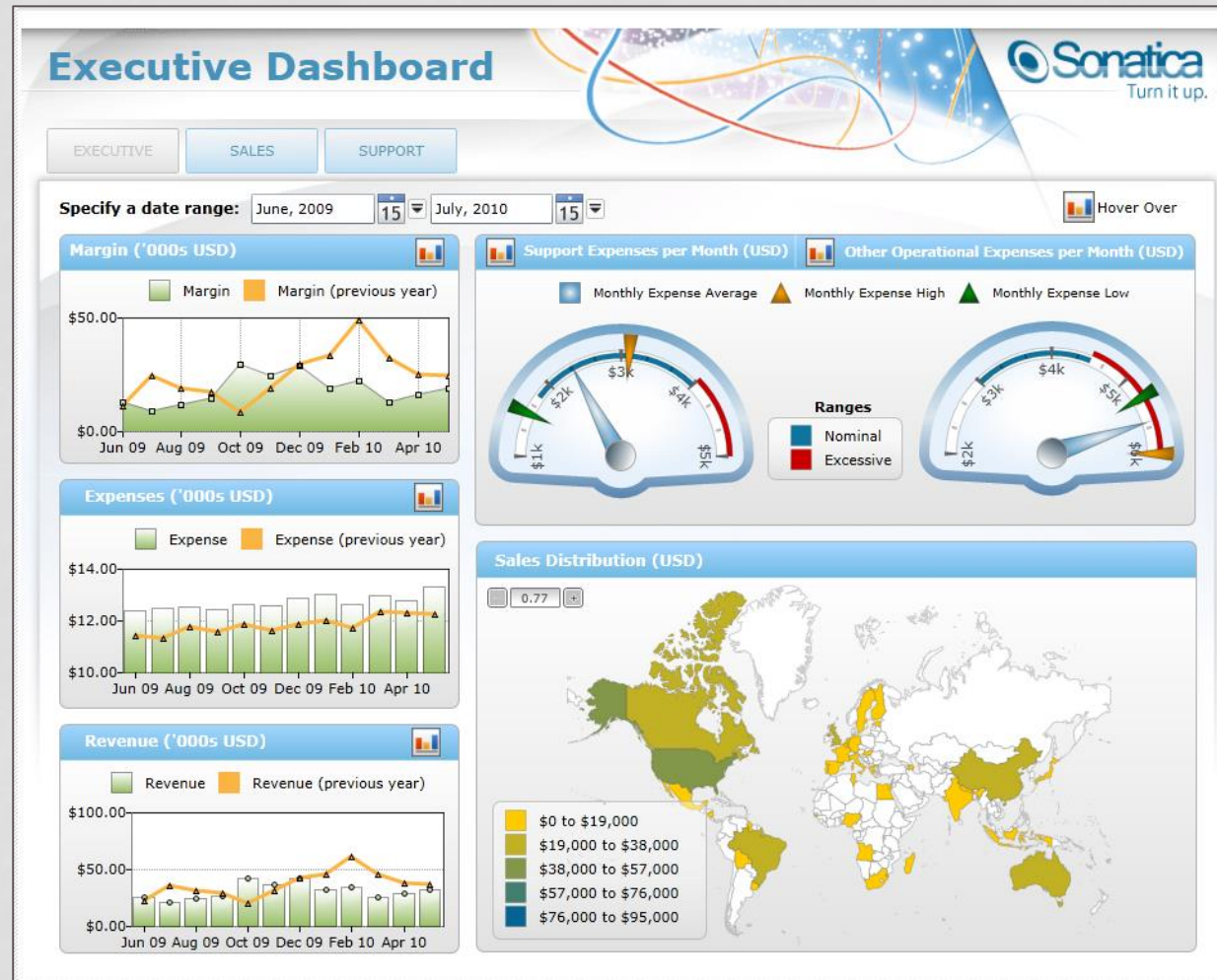
PERFORMANCE MEASUREMENT

- Good performance measures should:
 - Be focused on key factors.
 - Be a mix of past, present, and future.
 - Balance the needs of all stakeholders (shareholders, employees, partners, suppliers, etc.).
 - Start at the top and trickle down to the bottom.
 - Have targets that are based on research and reality rather than be arbitrary.

PERFORMANCE DASHBOARDS

- Performance dashboards are designed to be similar to a car dashboard
- Performance dashboards serve as an “organization magnifying glass”
- Measure performance, reward positive contributions and align efforts
- Used for forecasting, inventory, production and sales
- Organizational performance- “Three Threes”

PERFORMANCE DASHBOARDS



PERFORMANCE DASHBOARDS

- Dashboard design
 - The fundamental challenge of dashboard design is to display all the required information on a single screen, clearly and without distraction, in a manner that can be assimilated quickly
- Three layer of information
 - Monitoring
 - Analysis
 - Management

PERFORMANCE DASHBOARDS

- Three types of performance dashboards:
 1. Operational dashboards
 2. Tactical dashboards
 3. Strategic dashboards

PERFORMANCE DASHBOARDS

- What to look for in a dashboard
 - Use of visual components (e.g., charts, performance bars, sparklines, gauges, meters, stoplights) to highlight, at a glance, the data and exceptions that require action
 - Transparent to the user, meaning that it requires minimal training and is extremely easy to use
 - Combines data from a variety of systems into a single, summarized, unified view of the business
 - Enables drill-down or drill-through to underlying data sources or reports
 - Presents a dynamic, real-world view with timely data updates
 - Requires little, if any, customized coding to implement, deploy, and maintain

BALANCED SCORECARDS

- Monitor and show performance by focusing on certain outcome metrics and comparing them to a target
- Monitor tactical and strategic goals
- Balanced Scorecard
- Focuses on four organizational perspectives:
 - Financial
 - Customer
 - Internal business process
 - Learning and growth

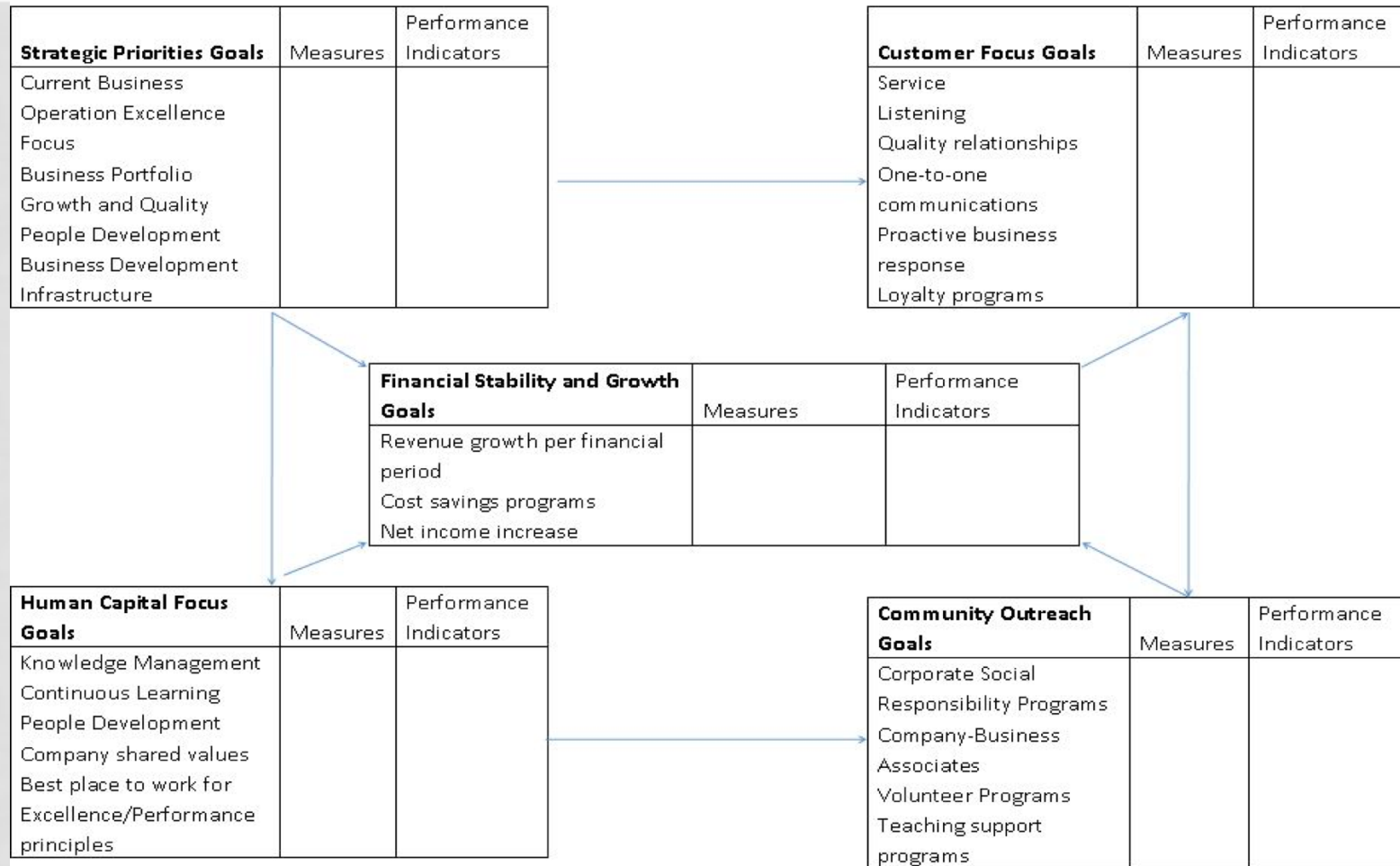
BALANCED SCORECARDS

- Approach for organizational assessment developed by Kaplan and Norton
- Firm's competitiveness
- Quantify the intangible assets of an organization
- Measure past performance
- Internal processes and intangible assets
- Measures value creation for the organization

BALANCED SCORECARDS

- Organizations can use the balanced scorecard as a means to link their long-term strategic objectives with their short term actions through four management processes.
 - Translating the vision
 - Communicating and linking
 - Business planning
 - Feedback and learning

BALANCED SCORECARDS



<p><u>Vision Statement</u></p>	<p>Goals and Objectives</p>	<p><u>Key Metrics</u></p>
<p>Our vision is to be internationally-recognized for providing a high-quality, technology-enabled educational experience rooted in our Miami location and focused on the unique requirements of doing business in a global and interconnected market.</p> <p><u>Core Values</u></p> <p><i>Excellence:</i> We pursue excellence in all we do and nurture this pursuit in others.</p> <p><i>Ethics:</i> We are committed to doing the right thing in both our words and deeds.</p> <p><i>Professionalism:</i> We hold ourselves to the highest standards of expertise and of professional conduct.</p> <p><i>Innovation:</i> We embrace change, uncommon thinking, creativity, and the entrepreneurial spirit.</p> <p><i>Collegiality:</i> In working together, we respect each other and welcome diverse viewpoints.</p> <p><u>Mission Statement</u></p> <p>Our mission is to create enduring educational value for our students, for our alumni, and for the business, professional, and academic communities we serve:</p> <p>•For our students-whom we prepare to succeed in a rapidly changing, technology-driven global business environment;</p> <p>•For our alumni-to whom we provide opportunities for continuing professional development and a legacy that appreciates as our excellence grows;</p> <p>•For the business and professional communities-to whom we offer knowledgeable graduates, educational programs, research, and collaborative projects;</p> <p>•For the academic community-to whom we bring new knowledge by creating an environment that nurtures high-quality research and the development of future scholars.</p>	<p><u>Strategic Priorities</u></p> <ol style="list-style-type: none"> Maintenance of Accreditation Focus - Build excellence and international recognition through investments in programs and faculty in the areas of international business, entrepreneurship, and professional services – accounting, finance, real estate, and insurance. Program Portfolio – Continually evaluate portfolios of programs to ensure excellence in teaching and learning and market need. Growth and Quality - Increase quality of undergraduate students while maintaining current enrollment, grow graduate enrollment by 50% over next 5 years while increasing quality of admitted students. Faculty – Recruit, develop and support an outstanding faculty. Funding – Acquire needed funds to support the college’s mission. Space – Complete construction of Phase II of the Business School Complex. <p><u>Strategic Initiatives 2008-2009</u></p> <ol style="list-style-type: none"> Maintenance of Accreditation: Implement review recommendations. Undergraduate Programs: Continue implementation of <i>Assurance of Learning System</i> and enhanced undergraduate career services. Graduate Programs: Complete scheduled program reviews and implement recommended changes. Faculty: Recruit replacements for faculty members who resign or retire and recruit new incremental faculty members. External Relations: Expand membership on our advisory boards and our community involvement. External Visibility: Maintain rankings. Internal Processes: Maintain technology for new School of Business Complex. Revenue Generation: Secure private funding for faculty support, student support, and the building; grow executive and professional education program; and plan for new value-added programs. <p><u>Core Competencies and Definition of Metrics</u></p> <p>(L)earning, Instruction, and Student Services - Provide educational programs and learning experiences that prepare individuals to make sustained contributions to organizations and society in a global environment and are recognized for excellence. Deliver outstanding student services.</p> <p>(R)esearch and Scholarship - Identify and address important business and economic issues through discovery, application, and dissemination of knowledge.</p> <p>(S)ervice and Outreach - Offer expertise to government agencies, business and professional organizations, and others, to promote economic development and to provide value-added educational and professional programs.</p> <p>(E)xternal Relations and Development - Enhance opportunities for mutually beneficial collaboration between the College and its constituents and grow private investments in the College.</p> <p>(P)eople - Attract, develop, and retain highly qualified faculty and staff.</p> <p>(I)nternal Operations - Cultivate an efficient and effective operation that enables faculty and staff to achieve the mission of the College.</p>	<p>Undergraduate Programs</p> <p>L1. Assurance of Learning Outcomes L2. Use and Manage Technology Outcome L3. Quality of Students L4. Student Recognitions L5. Head Count - # of Graduates L6. FTE enrollment - % of Enrollment Targets Met L7. Placement – Satisfaction and Outcomes L8. Satisfaction with Advising L9. Quality of Instruction L10. Expectations Met L11. Rankings</p> <p>Graduate Programs</p> <p>L12. Assurance of Learning L13. Quality of Students L14. FTE enrollment - % Enrollment Target Met L15. Placement – Satisfaction and Outcomes L16. Expectations Met L17. Rankings</p> <hr/> <p>R1. Publications in Premier Journals R2. Citations in Social Service Index R3. Editorial Board Membership R4. Recognition and Awards</p> <hr/> <p>S1. Revenues from EPE Programs S2. Participation on Boards</p> <hr/> <p>E1. Corporate Community Participating in Advisory Boards E2. Membership in Business Alumni Chapter E3. New Private and Corporate Donations</p> <hr/> <p>P1. Adequacy and Quality of Faculty P2. Professional Development Support of Faculty and Staff</p> <hr/> <p>I1. Technology Availability and Quality I2. User Satisfaction and Use of Technology Resources</p>

BUSINESS PERFORMANCE MANAGEMENT (BPM) OVERVIEW

- Business Performance Management (BPM) is...
A real-time integrated system that alert managers to potential opportunities, impending problems, and threats, and then empowers them to react through models and collaboration.
- Previously independent of everything else and known as Executive information system (EIS)
- Also called, corporate performance management (CPM by Gartner Group), enterprise performance management (EPM by Oracle), strategic enterprise management (SEM by SAP)

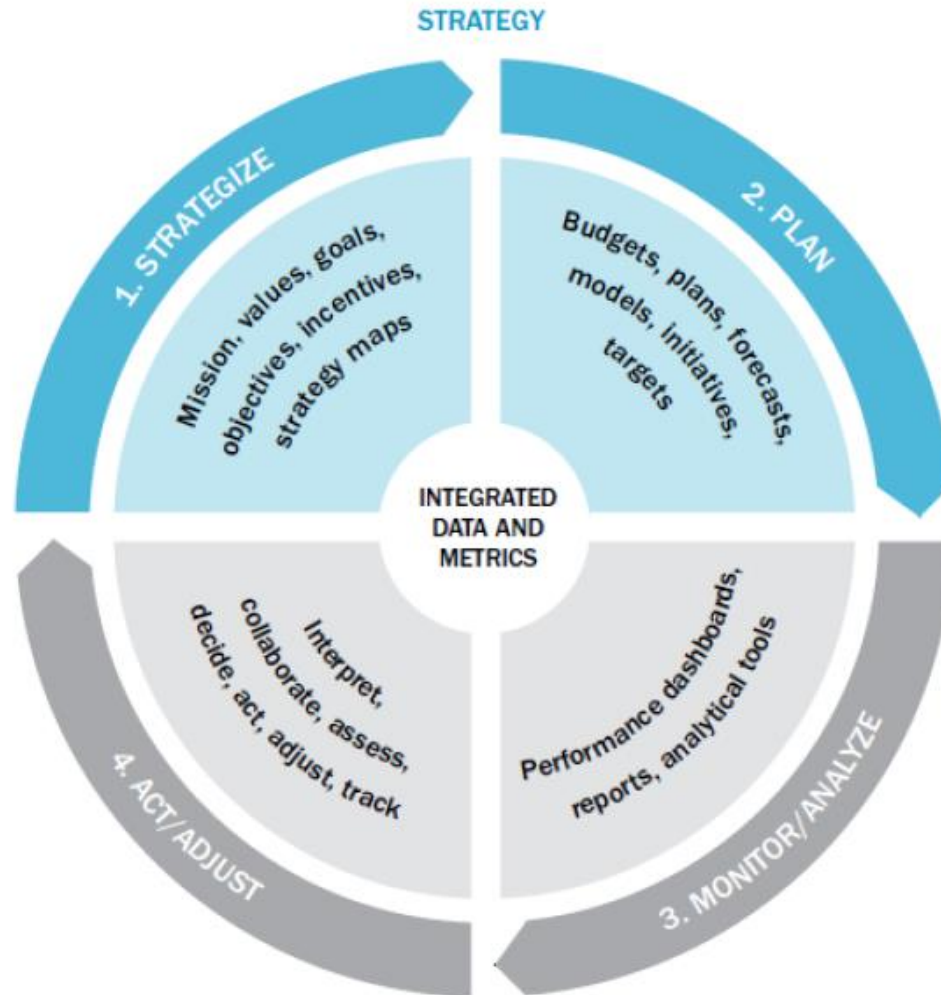
BPM DEFINITION

“A framework for organising, automating and analysing business methodologies, metrics, processes and systems to drive the overall performance of the enterprise. It helps organisations translate a unified set of objectives into plans, monitor execution and deliver critical insight to improve financial and operational performance.”

BUSINESS PERFORMANCE MANAGEMENT (BPM) OVERVIEW

- BPM encompasses three key components
 - A set of integrated, closed-loop management and analytic processes, supported by technology
 - Tools for businesses to define strategic goals and then measure/manage performance against them
 - Methods and tools for monitoring key performance indicators (KPIs), linked to organizational strategy
- <http://www.ap-institute.com/>

A CLOSED-LOOP PROCESS TO OPTIMIZE BUSINESS PERFORMANCE



Process Steps

1. Strategize
2. Plan
3. Monitor/analyze
4. Act/adjust

Each with its own process steps...

STRATEGIZE: WHERE DO WE WANT TO GO?

- **Strategic objective**

A broad statement or general course of action prescribing targeted directions for an organization

- **Strategic goal**

A quantified objective with a designated time period

- **Strategic vision**

A picture or mental image of what the organization should look like in the future

- **Critical success factors (CSF)**

Key factors that delineate the things that an organization must excel at to be successful

STRATEGIZE: WHERE DO WE WANT TO GO?

“90 percent of organizations fail to execute their strategies”

- The strategy gap
 - Four sources for the gap between strategy and execution:
 1. Communication (enterprise-wide)
 2. Alignment of rewards and incentives
 3. Focus (concentrating on the core elements)
 4. Resources

PLAN: HOW DO WE GET THERE?

- Operational planning
 - **Operational plan:** plan that translates an organization's strategic objectives and goals into a set of well-defined tactics and initiatives, resources requirements, and expected results for some future time period (usually a year).
- Operational planning can be
 - Tactic-centric (operationally focused)
 - Budget-centric (financially focused)

MONITOR: HOW ARE WE DOING?

- A comprehensive framework for monitoring performance should address two key issues:
 - What to monitor
 - Critical success factors – “What”
 - Strategic goals and targets
 - How to monitor – if a company plans to introduce a new product every qtr for next 2 years, the org needs to track new prod introduction over this time.

MONITOR: HOW ARE WE DOING?

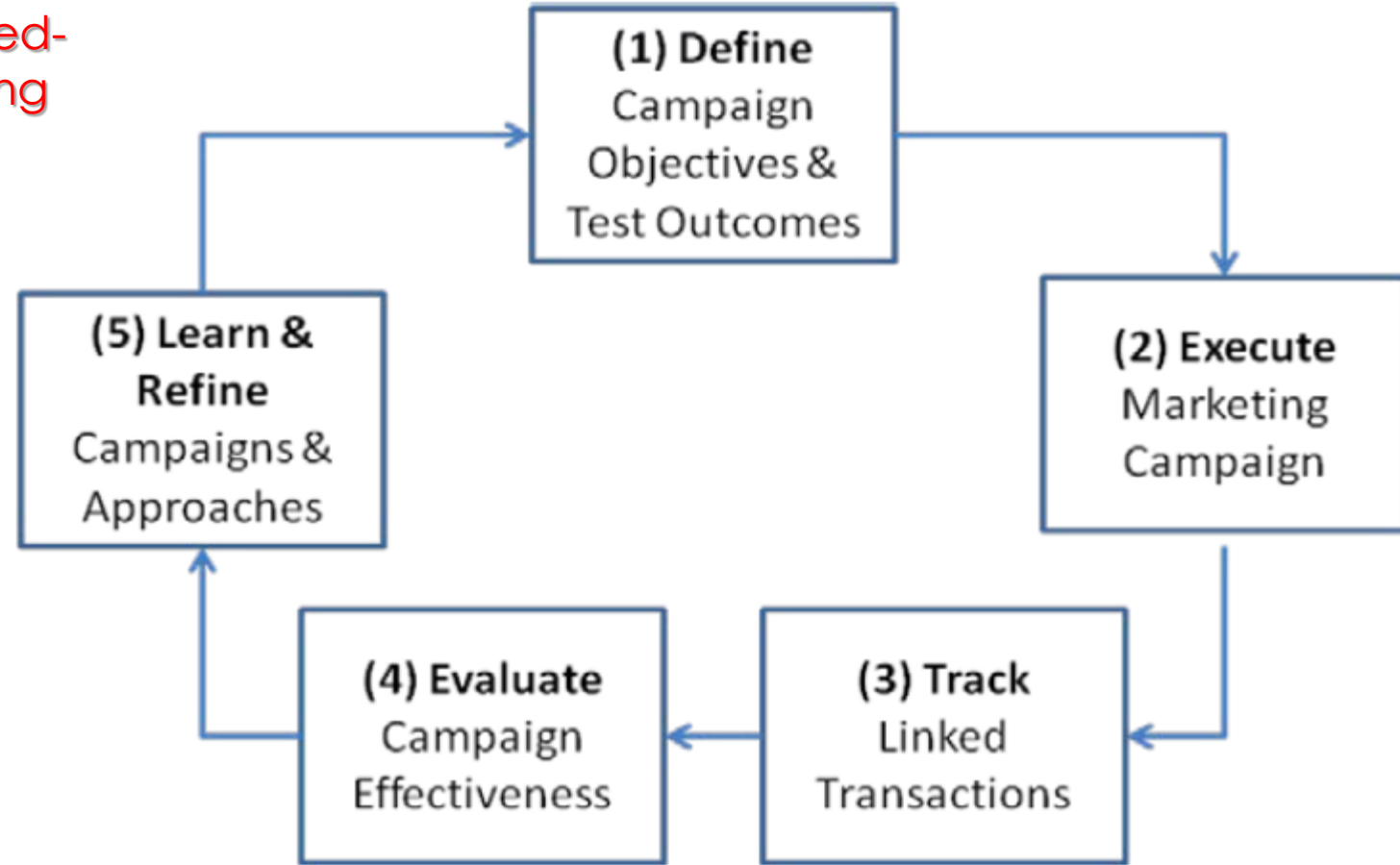
- Pitfalls of variance analysis
 - The vast majority of the exception analysis focuses on negative variances when functional groups or departments fail to meet their targets
 - Rarely are positive variances reviewed for potential opportunities, and rarely does the analysis focus on assumptions underlying the variance patterns

ACT AND ADJUST: WHAT DO WE NEED TO DO DIFFERENTLY?

- Success (or mere survival) depends on new projects: creating new products, entering new markets, acquiring new customers (or businesses), or streamlining some process.
- Most new projects and ventures fail!
 - Hollywood movies: 60% chance of failure
 - Mergers and acquisitions: 60%
 - IT projects (large-scale): 70%
 - New food products: 80%
 - New pharmaceutical products: 90% ...

ACT AND ADJUST: WHAT DO WE NEED TO DO DIFFERENTLY?

Harrah's Closed-
Loop Marketing
Model



BPM METHODOLOGIES

- An effective performance measurement system should help:
 - Align top-level strategic objectives and bottom-level initiatives.
 - Identify opportunities and problems in a timely fashion.
 - Determine priorities and allocate resources accordingly.
 - Change measurements when the underlying processes and strategies change.
 - Delineate responsibilities, understand actual performance relative to responsibilities, and reward and recognize accomplishments.
 - Take action to improve processes and procedures when the data warrant it.
 - Plan and forecast in a more reliable and timely fashion.