SAP SEM and Business Analytics

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Challenges and Approaches in Enterprise Management

The Solution: mySAP Financials Strategic Enterprise Management (SEM)

Availability of Strategic and Enterprise Management (SEM)

SEM Case Studies
Challenges in Collaborative Network Management...

- What are the main factors driving the business?
- How can we measure the performance of the business?
- How can we link relative performance to resource consumption?
- How can we continuously update our strategy?
- How can we adjust the operations efficiently to strategy updates?
- How can we better identify new business opportunities?
- How can we faster commercialize new business opportunities?
- How can we accelerate and integrate planning processes?
...require new Management Processes

- **Rolling forecasting**
- **Performance measurement**
- **Strategy management**
- **Focus on future business scenarios**
- **Continuous strategy checks**
- **Business network consolidation**

Instead of:
- Rigid yearly budgeting cycles
- Spreadsheet reports
- Meeting the budget
- Focussing on actuals vs. Plan analysis only
- Static strategic plans
Increasing Importance of Capital Markets...

Investors
- Less loyal
- Demanding high cash returns
- Require transparency
- Active portfolio management

Decide for Investment / Devestment

Formulate Expectations

Value Network Management

Management

- Brand Owner
  - System supplier
  - Sub-supplier
- Distr. Partner
- Customers
...require active Investor Relationship Management

- Understand capital market expectations
- Know more about your main Investors
- Establish ongoing relationship
- Deliver up-to-date informations
- Deliver the informations required by the capital market
- Control communication and do not react
- Utilize multiple communication channels
Investor Relationship Management and Network Management have to be reconciled.

- Formulate Expectations
- Communicate Targets and Strategies
- Analyze Performance
- Strategy Update
- Scenario Planning
- Scenario Valuation
- Target Setting & Action Planning
- Strategic Learning and Feedback
- Simulating
- Forecasting
- Business Planning and Performance Management
Challenges and Approaches in Enterprise Management

The Solution: mySAP Financials Strategic Enterprise Management

Availability of Strategic Enterprise Management

SEM Case Studies
BI Applications Framework

Data Warehouse/ODS

Transactional Applications: ERP, SCM, CRM, Finance, HR, Legacy, etc.

Key:
- Analytic BI Apps
- Operational BI Apps
- Strategic BI Apps

(Note: All applications shown are examples only.)

Source: Gartner Research
BI 구조와 위상 - BI Architecture

Business
- Key trends: Globalization, Visualization, Transparency
- Organizational drivers:
  - Performance Mgmt., User type, BI Methodology, Culture

Organization
- BI Applications
  - Strategic/Analytical/Operational
- Query & Reporting
  - Standard canned/Ad-hoc user driven

Functionality
- BI Platforms: EBIS, OLAP, Data Mining

Infrastructure
- Data Warehouse
- Operational Data Store
- ETT
- Integration Broker
- Point-in-time
- Real-Time

Transactional
- ERP
- CRM
- SCM
- Legacy
SEM and Business Analytics

Strategic Enterprise Management

- Manage strategy of Enterprise / Business Units (BU) to create long-term value
- Manage performance of BU to improve short-term results

Business Analytics

- Adapt business operations based on results from Business Analytics
- Optimize business processes across functions to improve overall business performance

Transactional processing (R/3, CRM, SCM, ...)

External communication

Objectives, Targets, Initiatives

3-5 year Strategic planning

Mid-term planning B/S, I/S, Cash Flow

Strategy analysis and assessment

Risk estimation

Strategy & Business Mgmt.

Forecast

Measure performance

Performance Management

Adapt operations

Business process optimization

Suppliers

Customers
Platform for SEM

기업 정보를 가치있는 자산으로 변환하고, 공급망, 조직, 고객관리의 Value Chain을 연결, 가치를 최적화하여 기업 전략으로 연동시킴으로써 전사적 전략 경영관리를 구현

Strategic Enterprise Management (SEM)

- 이해관계자 관리
- 전략관리
- 성과 관리
- 연결 결산
- 경영계획 및 시뮬레이션

Financial Analytics
Customer Relationship Analytics
Supply-Chain Analytics
Product Life-Cycle Analytics
Human Resource Analytics

Business Analytics

Platform for SEM and Business Analytics

mySAP BW

CRM
SCM
Legacy

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Manage strategy of Corporate and Business Units to create long-term value

Manage performance of Business Units to improve short-term results

Adapt business operations based on results from Business Analytics

Optimize business processes across functions to improve overall business performance
SAP SEM and Business Analytics

Enterprise Portal

**Strategy Management**
- Balanced Scorecard
- Value based Mgmt.
- EVA™ Adjustments
- Risk Management
- Strategy Templates

**Performance Measurement**
- Management Cockpit
- Value Driver Tree
- Measure Builder & Catalogs
- Benchmark Exchange & Analysis

**Business Planning & Simulation**
- Planning applications
- Strategic Planning
- Financial Statement Planning (B/S, I/S, CF)
- Investment Planning
- Process Coordination
- Planning Modelling

**Business Consolidation**
- Legal and Mgmt. Consolidation
- GAAP Adjustments
- Currency Translation
- Interunit Eliminations
- Cons. of Investments
- Restatement

**Stakeholder Relationship Management**
- Stakeholder Management
- Contact Management
- Business Information Collection

**Financial Analytics**
- Financial Planning, Budgeting & Forecasting
- Profitability Management
- Cost Management
- ABC/M
- Product Design Cost Estimate
- Payment Behaviour

**CRM Analytics**
- Customer Analytics
- Sales Analytics
- Marketing Analytics
- Channel Analytics

**PLM Analytics**
- Product Design Cost Estimate
- Lifecycle Profitability Analytics

**SCM Analytics**
- Supply Chain Performance Management
- Supply Chain Benchmarking
- Supply Chain Event Management

**Workforce Analytics**
- Personnel Cost Planning
- Management by Objectives
- Employee Turnover & Retention Analysis
- HR Benchmarking
- HR Balanced Scorecard

**Business Information Warehouse**

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Business Challenges in Enterprise Management

- Fast Close
- Strategy Execution
- Transparency of Risks
- Long-term Planning and VBM
- Mid-term Planning
- Operational Planning
- Flexible Plans – not fixed budgets
- Performance Measurement
Mid-term focus

Business challenge: Fast Close

Functionality
- Legal and management consolidation
- Currency translation
- Inter-unit eliminations
- Consolidation of investments
- Reporting of consolidated statements
- XBRL-based exchange of statements

Business benefits
- Fast close via high degree of automation
- Flexibility – customer-definable data model
- Easy to use – control via graphical monitor
- Quantity – high performance of all functions
- Reconciled external and internal group reporting
Long-term focus

Business challenge: Strategy Execution

Functionality
- Balanced Scorecard
- Top-down target setting

Business benefits
- Break-down of strategy into objectives, measures, targets and action plans.
- “Balanced” view of all success factors
- Integration of strategy execution into day-to-day business.
- Organizational alignment across business units.
- Sophisticated drill-down reporting provides background information.
Mid-term focus

Business challenge: Transparency of Risks

Functionality
- Risk management

Business benefits
- Transparency of business risks
- Early warning indicators
- E-mail notification
- Audit proof
- Drilldown into risk situation of multiple business units
- Integration of
  - Risk management
  - Value-based management
  - Strategy execution
Long-term focus

Business challenge:
Long-term Planning & VBM

Functionality
- Long-term planning (e.g. 3-5 years)
- Planning of shareholder value scenarios
- Value driver trees including “what-if” simulations
- *EVA™ adjustments and EVA calculations

Business benefits
- Flexibility within calculation methods
- Rapid planning using value drivers
- Results presented in graphical form
- “What-if” simulation and sensitivity analysis
- Integration with other planning applications
- Easy to create values for top-down planning

* EVA is a registered trademark of Stern Stewart
Mid-term focus

**Business challenge:** Mid-term Planning

**Functionality**

- Planning of balance sheet, income and cash flow statements
- Integration with other plans such as:
  - Sales plan
  - Cost center plan
  - Investment plan
  - Long-term plan
- Derivation of account values via business functions delivered by SAP

**Business Benefits**

- Reconciled mid-term plans
- High degree of integration with various planning applications
Short-term to mid-term focus

Business challenge: Operational Planning

Functionality

- Planning applications: sales, profitability, cost center, personnel cost, and investment planning
- Planning workbench for creation of user-defined planning applications

Business benefits

- Integrated financial, sales, and headcount plans
- Simple, personalized interface
- Web and MS Excel access
- Centralized definition and maintenance of planning models ensures consistency across the organization
- Support of top-down and bottom-up approach
**Short-term to mid-term focus**

**Business challenge:**
Flexible Plans – not fixed budgets

**Functionality**
- Rolling forecast

**Business benefits**
- Ability to adapt financial plans to constantly changing business environment
- Keeping track of changes
Mid-term focus

**Business challenge:**
Business Performance Measurement

**Functionality**
- Management Cockpit
- Value Driver Tree including Simulation
- Benchmark Analysis

**Business benefits**
- Reporting for senior management
- Zero training effort
- Alert-driven view of key success factors
- Graphic-driven performance analysis
- Actual performance, trends, and forecasts
- Drilldown to detailed OLAP-based reports
- „What-if“ analysis within value driver tree
- Outside-in approach: target management based on external benchmarks
Business Analytics

Financial Analytics
Product Lifecycle Analytics
Customer Relationship Analytics
Supply Chain Analytics
Workforce Analytics

Analytical Applications for Process Optimization
Financial Analytics – What does it include?

Financial planning and budgeting
- Financial planning and budgeting applications

Cost and profitability management
- Overhead cost assignments with ABC/M
- Product design cost estimate

Payment behavior analytics
- Customer credit management
CRM Analytics - What does it include?

Get to know your customer’s behavior and value in every phase of the lifecycle

Acquisition phase
- Market exploration
- Marketing Planning
- Campaign Management

Growth phase
- Channel Analytics
- Sales Planning
- Sales Performance Analytics
- Customer Behaviour Analytics
- Customer Value Analytics

Retention phase
- Service Analytics
- Churn Management
Supply-Chain Analytics – What does it include?

Supply-chain analytics

Supply chain performance management

Supply chain cost analytics

Integrated business planning
Product Life-Cycle Analytics – What does it include?

Product Life-Cycle Analytics

Product design cost estimation

Target costing

Product portfolio management
Workforce Analytics – What does it include?

Setting objectives (MBO)
- Objectives at employee level
- Compensation-relevant setting of objectives

Operative planning and simulation
- Detailed planning of headcount/costs
- Employee and position level
- Analysis and simulation support

Reporting and analysis
- Ad hoc query and standard reporting
- Example: salary analysis via benchmarks
- Example: fluctuation analysis
Challenges and Approaches in Enterprise Management

The Solution: mySAP Financials Strategic Enterprise Management

Availability of Strategic Enterprise Management

SEM Case Studies
## Financials

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Financials

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## Financials

### Business Analytics

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<td>Customer Value Analytics (C10, C17, C23)</td>
<td>Supply Chain Cost Analytics (C13, C23, C8)</td>
<td>Headcount Planning &amp; Simulation (C14, C24, C3)</td>
<td>Cost &amp; Profitability Management (C13, C23)</td>
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<td>Credit Risk Analytics</td>
<td>Customer Behaviour Modeling (C10, C17, C23)</td>
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<td>Product Lifecycle Profitability Management (C12, C6)</td>
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<td>Marketing Analytics (C10, C17, C23)</td>
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<td>Sales Analytics (C10, C17, C23)</td>
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Challenges and Approaches in Enterprise Management

The Solution: mySAP Financials Strategy and Enterprise Management

Availability of Strategy and Enterprise Management

SEM Case Studies
Strategy Focused Organization

Measurement and Reporting

1992

Alignment and Communication

1996

Enterprise-Wide Strategy Focused Organization (SFO)

2000

Articles in Harvard Business Review:

- “The Balanced Scorecard — Measures that Drive Performance” January - February 1992
- “Putting the Balanced Scorecard to Work” September - October 1993
- “Using the Balanced Scorecard as a Strategic Management System” January - February 1996
- “Having Trouble With Your Strategy? Then Map It” - September - October 2000

Acceptance and Acclaim:

- “The Balanced Scorecard” is translated into 18 languages
- Selected by Harvard Business Review as one of the “most important management practices of the past 75 years.”
The Five Principles of Strategy-Focused Organization

1. Mobilise Change through Executive Leadership
   - CEO sponsorship
   - Executive team engaged
   - "New way of managing"
   - Accountable for strategy
   - A performance culture

2. Govern to Make Strategy a Continual Process
   - Linked to budgeting
   - Linked to management
   - Management meetings
   - Feedback system
   - Learning process

3. Translate the Strategy into Operational Terms
   - Mission/vision
   - Strategy maps
   - Balanced Scorecard
   - Targets
   - Initiatives

4. Motivate to Make Strategy Everyone’s Job
   - Strategic awareness
   - Goal alignment
   - Linked incentives

5. Align the Organisation to the Strategy
   - Corporate roles
   - Corporate – SBU
   - SBU – shared services
   - External partners

The Five Principles of Strategy-Focused Organization.
재무분석가들이 가장 많이 고려하는 10가지의 비재무적 변수들

1. Execution of corporate strategy
2. Management Credibility
3. Quality of corporate strategy
4. Innovation
5. Ability to attract and retain talented people
6. Market share
7. Management expertise
8. Alignment of compensation with shareholders interests
9. Research leadership
10. Quality of major business processes

전략관리 : BSC 와 Risk 관계는

##### Value Drive Tree

**Value Drivers**
- ROCE, DCF, EVA, Revenues Growth, Margins, Tax Rates, WACC etc

##### Balanced Scorecard

**Strategy**
- 전략 : ex 수익력극대화

**Objectives**
- 전략목표
  - Ex: 신규 제품 매출 증대

**Initiatives**
- 전략추진과제
  - Ex: 마케팅 강화

**Measures (KPI)**
- Ex: 매출액

##### Risk Management

**Risks**
- EX: 새로운 경쟁사

**Risk Category**
- Risk-Group A
  - Risk 1
  - Risk 2
- Risk-Group B
  - Risk 3

**Risk Group Name**
- Early Warning

**Early Warning Indicators (Measures)**
사업계획 및 시뮬레이션: Closed Loop Process

- Dynamic Simulation
- What-If
- Goal-Seeking

- Simulation

- Planning
  - Rolling Forecasts
  - Target Setting
  - Ressources

- Performance Measurement

- Balanced Scorecard
  - Management Cockpit

- BW Reporting
  - Alerts & Triggers

- Data Warehouse (BW)
System Dynamics의 활용성

System Dynamics

System Thinking + Computer Simulation

Structure(구조)

- Cause and Effect
- Feedback
- Stock, Flow, Delay

Behavior(행태)

- Exponential Growth
- Goal-Seeking
- Oscillations
- S-Shaped

Time

- Modeling
  - 이해하기 쉽게 현재의 구조를 정확히 반영
  - 상호간의 인과관계 및 Feedback 구조 반영

- Simulation
  - 시간의 경과에 따른 구조의 형태 분석
  - 발생된 문제의 해결 포인트 파악
### Worldwide Business Intelligence Tools Revenue by Segment, 1999–2001 ($M)

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<td>Packaged data mart/warehouse</td>
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Source: IDC, 2002

### Worldwide Business Intelligence Tools Revenue by Vendor, 1999–2001 ($M)

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<td>Oracle Corp.</td>
<td>230.6</td>
<td>180.4</td>
<td>166.1</td>
<td>4.4</td>
<td>-8.0</td>
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<tr>
<td>Crystal Decisions</td>
<td>113.2</td>
<td>118.5</td>
<td>153.1</td>
<td>4.0</td>
<td>29.2</td>
</tr>
<tr>
<td>MicroStrategy</td>
<td>109.9</td>
<td>145.2</td>
<td>120.5</td>
<td>3.2</td>
<td>-17.0</td>
</tr>
<tr>
<td>Bric Technology</td>
<td>106.0</td>
<td>128.2</td>
<td>115.1</td>
<td>3.0</td>
<td>-10.2</td>
</tr>
</tbody>
</table>

Source: IDC, 2002
## BI Concept의 변화

<table>
<thead>
<tr>
<th>과거의 BI</th>
<th>현재의 BI</th>
<th>미래의 BI</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 주로 DW(Data Infra)를 구축하는 IT적인 측면 강조</td>
<td>• 구축된 Data Infra를 활용하는 BI application 강조</td>
<td>• 모든 BI application 내에 Forecasting, planning, simulation등 기능 탑재.</td>
</tr>
<tr>
<td>• ETL, DW, OLAP, Reporting, data mining</td>
<td>• 분석CRM, ABC, BSC, CPM, 각 부문 별 Risk Management, Credit Scoring, Fraud Detection</td>
<td>• 전사적인 통합 BI 강조</td>
</tr>
<tr>
<td>• 필요한 BI Application은 자체적으로 BI라 하지 않고 구축(ex. 전략수요예측)</td>
<td>• 표준화된 tool, solution</td>
<td>• Operational system에 auto-feed back</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• SCI (Supply Chain Intelligence)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Basel II</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 전사 통합BI – CRM/ABC/BSC/FMS/Risk/Credit Scoring</td>
</tr>
</tbody>
</table>