Organizational Decision-Making and Process Management (BPM)

BSAD 141
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BDIS: Chapter 2

Agenda
- Decision-making and types of decisions
- Decision-making and the organizational pyramid
- Metrics
  - CSFs and KPIs
  - Efficiency versus effectiveness
- Terminology associated with BPM
- Changes at different decision-making levels
- Scope of decision

Decision-Making Essentials

Organizational Pyramid

Decision-making and problem-solving occur at each level in an organization

Operational decision making -
Employees develop, control, and maintain core business activities required to run the day-to-day operations

Structured decisions -
Situations where established processes offer potential solutions

Operational decision making -
Labor Shift Clearing/Brokerage house, Inventory Rerouting, Weather responsiveness, Teleworking solutions...

Decision-Making Essentials

Managerial decision making –
Employees evaluate company operations to identify, adapt to, and leverage change

Semistructured decisions – Occur in situations in which a few established processes help to evaluate potential solutions, but not enough to lead to a definite recommended decision

Disenfranchised customer detection, Fraud Detection, Policy crafting...

Decision-Making Essentials

Strategic decision making –
Managers develop overall strategies, goals, and objectives

Unstructured decisions –
Occurs in situations in which no procedures or rules exist to guide decision makers toward the correct choice

Strategic decision making –
Digital Dashboards, Ad Hoc Analysis tools, Visualizations
Information, Tools, and Decisions

Information Levels Throughout An Organization

Decision-Making Essentials

Types of Decisions
- Structured
- Unstructured

Why Does This Matter?
- The decision-makers at different managerial levels are responsible for making very different types of decisions – some decisions are much more structured than others
- Each decision-making level requires different types of information and different tools

Supporting Decision-Making with MIS

Operational Support Systems
- Transaction processing system (TPS) – Basic business system that serves the operational level and assists in making structured decisions
- Online transaction processing (OLTP) - Capturing of transaction and event information using technology to process, store, and update
- Source document – The original transaction record
Operational Support Systems

Systems Thinking View of a TPS

Managerial Support Systems

Online analytical processing (OLAP) – Manipulation of information to create business intelligence in support of strategic decision making

Decision support system (DSS) – Computer-based model(s) to support managers and business professionals during the decision-making process

Managerial Support Systems

Four quantitative models used by DSSs include
1. What-if analysis
2. Sensitivity analysis
3. Goal-seeking analysis
4. Optimization analysis

Managerial Support Systems

Systems Thinking View of a DSS

Strategic Support Systems

Executive information system (EIS) – A specialized DSS that supports senior level executives within the organization

- Granularity
- Visualization
- Digital dashboard

Managerial Support Systems

Interaction Between a TPS and DSS
Strategic Support Systems

- Most EISs offering the following capabilities:
  - Consolidation
  - Drill-down
  - Slice-and-dice

MEASURING ORGANIZATIONAL BUSINESS DECISIONS

**Critical Success Factors**
- Crucial steps companies perform to achieve their goals and objectives and implement their strategies
- Key Performance Indicators
  - Quantifiable metrics a company uses to evaluate progress toward critical success factors

<table>
<thead>
<tr>
<th>Critical Success Factors</th>
<th>Key Performance Indicators</th>
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<tbody>
<tr>
<td>• Create high-quality products</td>
<td>• Turnover rates of employees</td>
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<tr>
<td>• Retain competitive advantages</td>
<td>• Percentage of help desk calls answered in the first minute</td>
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<tr>
<td>• Reduce product costs</td>
<td>• Number of product returns</td>
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<tr>
<td>• Increase customer satisfaction</td>
<td>• Number of new customers</td>
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<td>• Hire and retain the best business professionals</td>
<td>• Average customer spending</td>
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Metrics: Measuring Success / Performance

- **Critical success factors (CSFs)** — The crucial steps companies make to perform to achieve their goals and objectives and implement strategies
- **CSFs are larger picture performance measures** that directly relate to a specific goal

- **Key performance indicators (KPIs)** — The quantifiable metrics a company uses to evaluate progress toward critical success factors
- Much like objectives are tied to goals, multiple KPIs are often tied to a specific CPI
Key Performance Indicators (KPIs)
- When you look at the individual KPI examples, you should note that they CAN be explicitly measured
  - Turnover rates of employees
  - Number of product returns
  - Number of new customers
  - Average customer spending

Metrics: Measuring Success / Performance
- **External KPI**
  - Market share – The portion of the market that a firm captures (external)
- **Internal KPI**
  - Return on investment (ROI) – Indicates the earning power of a project

http://www.youtube.com/watch?v=R0rdMM5yPQ

Efficiency Versus Effectiveness Measures
- **MIS Efficiency metrics**
  - The extent to which a firm is using its resources in an optimal way (or the best way) – getting the most from its resources
  - Measure the performance of MIS itself, such as throughput, transaction speed, and system availability

Efficiency Versus Effectiveness Measures
- **MIS Effectiveness metrics**
  - How well a firm is achieving its goals and objectives
  - Measures the impact MIS has on business processes and activities, including customer satisfaction and customer conversation rates

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<th>EFFICIENCY</th>
<th>VS-</th>
<th>EFFECTIVENESS</th>
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<tr>
<td>Throughput – the amount of information that can travel through a system</td>
<td>Usability – the ease with which people perform transactions or find info</td>
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<td>Transaction speed – the amount of time a system takes to perform a transaction</td>
<td>Customer satisfaction – measured by satisfaction surveys, how many retained, and increase in revenue per customer</td>
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<tr>
<td>System availability – the number of hours a system is available</td>
<td>Conversion rates – how many ‘touches’ it takes to convert a first time user to become a customer and purchase the product</td>
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<td>Information accuracy – How often a system generates the correct results when doing the same transaction many times</td>
<td>Financial – ROI, cost-benefit analysis, break-even analysis</td>
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<td>Response time – how long it takes to respond to user interactions.</td>
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The Interrelationship Between Efficiency and Effectiveness Metrics
- Ideal operation occurs in the upper right corner
Relationships Between Measures
- Benchmark
- Benchmarking
  - You can’t improve what you don’t measure!!

MANAGING BUSINESS PROCESSES
Businesses can gain a competitive edge when they minimize costs and streamline business processes

MANAGING BUSINESS PROCESSES
Customer-facing process - Results in a product or service that is received by an organization’s external customer
- Business-facing process - Invisible to the external customer but essential to the effective management of the business

Business Process Management
- BPM – a systematic approach for creating, documenting, evaluating and improving all business processes throughout the organization

Business Process Management
- Focuses on aligning the organizations business processes with its goals and objectives
- How can processes be improved to create better performance within the primary and secondary activities and improve the flow of information and material within the organization’s value chain?
**Business Process Management**
- Evaluating current processes and designing better, "more effective" processes
  - Provide more value to the customer
  - Reduce "costs"
  - Increase "benefits"
  - Requires an established data collection and benchmarking process

**Business Processes and Systems**
- [https://www.youtube.com/watch?v=3iAp9me4P1c](https://www.youtube.com/watch?v=3iAp9me4P1c)
- [https://www.youtube.com/watch?v=L5co8_S9BeU](https://www.youtube.com/watch?v=L5co8_S9BeU)

**There is A LOT of similar terminology…**
- These 3 terms all fall under the umbrella of Business Process Management (BPM) / Business Process Improvement but mean different things
  - Continual improvement process
  - Total quality management
  - Six Sigma

**Continual Improvement Process (CIP)**
- CIP – specifically refers to incremental improvement based on small changes rather than on completely reengineering processes
  - Is CIP just another term for (or another way to view) the automation component of Business Process Improvement?

**Total Quality Management (TQM)**
- TQM – captures the idea that the quality of products, services, and processes is the responsibility of everyone in the organization (all people and processes involved in the creation, dissemination, and use of the products and services offered)
  - This concept is not new, but stresses that upper-level management alone is not responsible for "quality management"

**Six Sigma**
- Six Sigma – a business management strategy attributed to Motorola that seeks to improve quality by eliminating errors associated with variations in manufacturing and business processes
  - Is Six Sigma just another term for (or another way to view) product / service consistency?
  - Is it simply detailed documentation and strict adherence to engineering and management practices?
BP Changes with MIS

Changes at Each Decision-Making Level
- Automation is an operational level change
- Streamlining is a managerial level change
- Business process reengineering (BPR) is a strategic level change

Changes at Each Decision-Making Level
- Automation – automate specific tasks or activities in an existing process
- Streamlining – simplify, refine, eliminate (an incremental change) in an existing process
- BPR – dramatically or completely change how things are done
  - Could involve completely eliminating old processes and adopting new ones

Business Process Management
- Viewing and evaluating BPs in isolation by functional area has limited benefits
- Changing a process without considering how that process integrates with other processes in the value chain can:
  - Address symptoms of a problem rather than the problem itself
  - Impact other processes in unexpected ways
  - Lead to interorganizational conflict

Not Necessarily Simple...
- Are people / systems that are taking the orders communicating with operations people / systems, and with people / systems delivering the orders?
- Independent functional area “silos” which are not working together present a huge problem for organizations

Not Necessarily Simple...
- FedEx conflicting KPI example
  - Sales team sets 2 KPI
    - Increase # of orders
    - Increase sales $
  - Operations team sets 2 KPI
    - Reduce cycle time
    - Reduce lead time
Not Necessarily Simple…
- There are some potentially HUGE issues associated with BPM
  - What does automation imply for some lower-skilled workers?
  - Can the organization find the skilled workers it needs to manage, maintain, and operate new systems / technologies?

Not Necessarily Simple…
- People are generally resistant to, and suspicious of, change – especially big changes
- As an organization implements larger changes such as streamlining and BPR (that can have substantial impacts on employees and how things are currently done) there tends to be more push back

Business Process Management
- As organizations change processes further up the organizational pyramid (higher management levels), the organizational-wide impact of these changes grows larger
- [https://www.youtube.com/watch?v=DlsfCgONWNA](https://www.youtube.com/watch?v=DlsfCgONWNA)

The scope of the processes
- Decision-making and types of decisions
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The scope of the processes
- **Functional processes** – BPs limited in scope and occur within a single area
- **Cross-functional processes** – BPs are wider in scope and may involve several business units within a single organization
- **Inter-organizational processes** – BPs are very wide in scope and involve multiple organizations

Lecture Summary