Keys for Successfully Implementing Resource Consumption Accounting (RCA)

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What Will Be Covered...

• Why Implement RCA?
• What Is RCA (Highlights)?
• What Does Implementation Entail?
Why Implement RCA?

Finance Officers’ Current Satisfaction

[Bar chart showing levels of satisfaction with marginal information accuracy:
- V. Dissatisfied: 9.9%
- Dissatisfied: 27.9%
- S. Satisfied: 39.6%
- Satisfied: 21.6%
- V. Satisfied: 0.9%

Levels of Satisfaction: V = Very; S = Somewhat]
Why Implement RCA?

Inability to Make Business Decisions for:

- **Capacity Management** –
  - When, where, how much, cost of idle, OT/Temp/Perm, etc.
  - Unpredicted wasted resources

- **Optimization of Processes** –
  - Sub-optimization of a manager’s specific area,
  - Inability to take timely or appropriate corrective actions
  - Arbitrary budget – ineffective performance measurement and control
Why Implement RCA?

Inability to Make Business Decisions for:

- **Appropriate Mix Strategies – resources, products/services, customers**
  - Inaccurate marginal cost information, contribution, and gross margins
  - Complaints by managers of unnecessary over costing of products
  - Experienced the fixed cost death spiral

- **Simulation Scenarios –**
  - Lack of understanding of causal relationships between outputs
  - Make/Buy/Outsourcing mistakes
  - Inaccurate predictive results
Why Implement RCA?

Specific Examples:

- **Greenfield** – start with the best from the beginning
- **Competitive Bidding Environment** (low margin industry) – requiring accurate understanding of fixed costs for break even analysis
- **External Pressure for Product Mix Shifts** – impacting realignment of budget/plan
- **Curiosity** – pilot implementation for profit optimization/product cost adjustments.
- **Internal Need for Justification** – poor demand planning on internal customer organizations driving fluctuating full absorption allocations
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RCA’s Foundation

RCA – a made-in-the-U.S. approach – combining the best of continental European and U.S. practices into a new cost management approach

- Principles from the dominant cost management approach in German-speaking Europe – Grenzplankostenrechnung (GPK) – has been integrated into RCA
- GPK is essentially a well developed and sophisticated standard costing system, adopted by more than 2,300 companies
- RCA also integrates the improved analytical and process/activity management view of ABC/ABM
A Monetary View of Operations

• Tight integration between logistics and management accounting
• The logistics view and the cost view are two sides of the same coin
• The level of detail available to logistics is also available to costing
The Basics of RCA

1) The view of resources – a specific resource definition. Emphasizes resource interrelationships and attributable resource costs information.

2) The quantity structure – causal relationships are expressed as relationships between input and output quantities – not money

3) The view on consumption and cost behavior – tracks fixed and proportional costs through all relationships
Basics #1: View of Resources

- Resources are the focus but not to the exclusion of other analytical dimensions
- There are multiple cost objectives of an RCA model beyond the resource elements & pools, such as; processes/activities, jobs, products, services, customers, strategic goal, etc.
Basics #1: View of Resources

Resource Elements and Resource Pools:

RCA recognizes resource elements as the smallest denominator in the cost model. Related resource elements are grouped together in a resource pool and associated with a quantified resource pool output measure. Resource elements can be both monetary (i.e., Cost elements) or quantitative (i.e., utilization statistics, other output consumed, etc.)

Resource Elements
- Ex. Salaries,
- Depreciation,
- Electricity,
- Internal Support Costs

Resource Pools
- Ex. HR Labhr, Line Machr,
- Facilities SQFT
Basics #1: View of Resources

Capacity Resides on the Resource:

Resources are the entities invested in to establish capacity. The approach in Resource Consumption Accounting is to manage capacity on the resource. Excess/Idle capacity has always been and will always be a matter of idle resources. Excess/idle capacity is viewed as a variance and highlighted as such in product P&L’s. Full absorption of costs to the lowest level product is not practiced.
Basics #1: View of Resources

If a Process/Activity object is utilized within an RCA model it is viewed as utilization of capacity only, not the owner of capacity. This is due to:

- The potential for 1:n relationships.
- The potential for n:1 relationships.
- The diversity of Units of Measure.
Basics #1: View of Resources

In RCA These difficulties do not exist because:

- Measurement occurs on the resource through a quantified resource output measure.
- Excess/Idle capacity is unambiguously isolated on the resource.
- Due to a single homogeneous unit of measure the fruit basket problem does not exist.
Basics #2: Quantity Structure
Basics #2: Quantity-Based

An approach to reflecting economic activity that is entirely predicated on the logistical quantity flows in an enterprise.

\[ \text{KwHs to Mach.Hrs} = 200:1 \]

Causal relationships in RCA are expressed in output unit to output unit quantity standards. For example, the relationship between a machine hour and the electricity (KwHs) that the machine consumes.
Basics #2: Quantity Structure

Relationships of Resources to Consumers are:

- functions of the invested resource base.
- first and foremost quantity-based – not value based.
- a relationship that is an output (provider) to output (consumer) relationship.
- often reciprocal/simultaneous.
- dynamic,
- Influencers of the nature of cost as output is consumed
Basics #2: Quantity Structure

*Fully Burdened Resource Costs are Required to:*

- Gain insight into the true cost of capacity.
- Gain insight into the total cost of providing an internal service.
- Accurately cost products and services.
- Help make sensible make-buy decisions.
- Help make sensible outsourcing decisions, capacity ripple effect.
Basics #2: Quantity Structure

• The principle of resources as the actual consumers, also exists in conjunction with activities/processes
• Obtaining resource attributable costs while maintaining the process/activity view of costs

- Quantity Consumption with Values
- Resource Interrelationships - Activities Consumed by the Resources that the Services are Provided for
- Activities Consumed by a Cost Objects
Process/Activity to Process/Activity relationships would not be modeled since the resource pool is overlooked causing several issues:

- **Complexity** – a single relationship becomes multiple relationships.
- **Compromise** – in order to simplify the cost model, relationships become approximations introducing errors.
- **Inaccuracy** - fully burdened resource costs are not provided.
RCA recognizes two important and fundamental principles of consumption and cost behavior (the nature of costs).

Cost characteristics (Fixed/proportional) inherent to the resources deployed

The influence of quantity flow (fixed/proportional consumption) characteristics on these inherent resource cost characteristics
Basics #3: Consumption & Cost Behavior

Scenario 1
The Resource Output Quantity Consumed by the Furnace is...
A Fixed Quantity of: 15 MwH's
and the Initial Inherent Nature of Cost, As Expressed in the Unit Output Rate, is...
Fixed @: $100/MwH
The Result is: $1,500
The Nature of Cost Remains Fixed.

Scenario 2
The Resource Output Quantity Consumed by the Furnace is...
A Fixed Quantity of: 15 MwH's
and the Initial Inherent Nature of Cost, As Expressed in the Unit Output Rate, is...
Proportional @: $50/MwH
The Result is: $750
The Nature of Cost Changes to Fixed.

Scenario 3
The Resource Output Quantity Consumed by the Furnace is...
A Proportional Quantity of: 184 MwH's
and the Initial Inherent Nature of Cost, As Expressed in the Unit Output Rate, is...
Fixed @: $100/MwH
The Result is: $18,400
The Nature of Cost Remains Fixed.

Scenario 4
The Resource Output Quantity Consumed by the Furnace is...
A Proportional Quantity of: 184 MwH's
and the Initial Inherent Nature of Cost, As Expressed in the Unit Output Rate, is...
Proportional @: $50/MwH
The Result is: $9,200
The Nature of Cost Remains Proportional.
RCA Advantages

- Primary principles have been around for decades and are well accepted in the management accounting community.
- Finally, a solution that settles the age-old debate of fixed and variable/proportional.
- An approach to management accounting that provides both accurate marginal and attributable cost information.
- Apart from unambiguous decision support information, RCA also plays a significant role in organizational processes like planning/budgeting and performance measurement.
- Key to an enterprise’s proactive stance to address internal and external changes.
RCA Basics Highlights

- Effective management and conversion of Resources is the key for management decision making
- Resource Pools provide the view necessary for capacity management as capacity resides at the Resource Pool
- Stringent definition of Fixed/Proportional as defined within the relationship view not a time dimension or based on type of decision
- Supply/Demand economic view of causal quantity relationships and the consumption of the resource pools
- Multiple cost objects (intermediate and final) are incorporated in an RCA model; resources, resource pools, process/activities, jobs, products/services, customers, etc.
What Will Be Covered...

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What Is Different This Time?

• We have all learned from initiatives over the last 20 years
• RCA is not new – fundamental principles have been implemented thousands of times over the last 60 years
• RCA is fully compatible with the revised IFAC (International Federation of Accountants) statements on management accounting
• Professional bodies (IMA) in the United States are involved
RCA Implementation Sample

- Project Start-Up
- Scope/Charter
- Conceptual Design
- Realization
- Testing
- Training
- Evaluation
RCA Implementation Deliverables

Project Start-Up
- Scope/Charter

Conceptual Design
- Project Plan
- Scope Document
- Project Charter
- Steering Committee
- Etc...

Realization
- RCA Conceptual Design
- Key Data Structures
- Envision Processes
- Specifications
- Etc...

Testing
- Prototyped Cost Model
- Process Documentation
- Policy/Procedure Impacts
- Testing Scenarios
- Etc...

Training
- Live System
- Utopia
- Etc.....

Evaluation
Where Do We Begin? (Conceptual Scope)

Current Management Accounting Systems

![Cost Accounting Methodologies Used by Respondents](image)

- **Std Cost**: 72
- **ABC**: 36
- **TOC**: 5
- **Direct Cst**: 36
- **Absorp**: 32
- **Full Absor**: 29
- **Other**: 4

The CAM-I RCA Interest Group Survey
RCA Implementation – Scope/Charter

- **Key #1: Appropriate Owner** - C level champion is required and often multiple C level owners are involved due to changing the underlying framework of how information is generated across the organization.

- **Key #2: Manage Expectations** - Perform impact assessment and risk analysis.

- **Key #3: Staff Correctly** - This is not a financial endeavor. Usually more involvement is required from operational managers than from financial analysts, so project staffing mix is important.

- **Key #4: Be Realistic** - Time drives scope. Assignment methodologies are impacted when cutting over to an RCA framework.
RCA Implementation – Conceptual Design

- The dynamic aspect of RCA is due to the cost model being reflective of the operational environment. To develop the conceptual design of the operational model, decompositions of the organizations must take place.
- The decomposition breaks down the organization resulting in:
  - Key Data Elements: Resources, Resource Pools, Capacity Measures, Cost Objectives/Objects, etc.
  - Supply/Demand quantity relationships are modelled in an effort that is akin to an Industrial Engineering exercise to develop standard consumption relationships
- Multiple management processes are altered/redesigned; planning cycles, performance parameters, actual tracking, reporting, etc.
RCA Implementation – Conceptual Design

• **Key #5: Alignment** - The RCA model’s conceptual design must be tied to organization strategies and performance measures.

• **Key #6: Front-Line Manager Participation** - This provides an accurate reflection of the environment, awareness of the change management aspects involved, and buy-in from those that will later be receivers of the information.

• **Key #7: Over Estimate** - Development of the Conceptual Design is the easiest activity to underestimate for an implementation. When determining the scope, overestimate the time required for this phase.

![Diagram of project stages]
RCA Implementation - Realization

- Realization is conversion of a paper/theoretical model into a sustainable technical platform(s)
- Varying systems are potentially altered, such as logistics, organizational, planning, management decision reporting, etc.
- Policies/Procedures are updated for areas within the management control cycle: planning, actuals, projections, reporting, corrective actions, variance justifications, etc.
- Iterations/alterations of the conceptual design will occur as the model is converted into a system
RCA Implementation - Realization

- **Key #8: Communicate Often** – Scope and statuses should be clearly communicated at least on a monthly basis especially to support areas to manage expectations and identify issues

- **Key #9: Change Management is Crucial** – RCA is about responsibility accounting and therefore will impact the culture of an organization. These impacts must be managed throughout the implementation not acknowledged at go-live.
RCA Implementation - Testing

• **Key #10: Test Everything** – Especially the results.

• Testing encompasses:
  - Unit testing of the model, interfaces, new or altered systems, etc.
  - Integration testing to ensure all the pieces now make one part
  - User Acceptance testing to obtain the end user’s sign-off
  - Stress/Volume testing to ensure system performance standards have been accommodated
  - Final determination of impacts to management decision support capabilities
RCA Implementation - Training

- **Key #11: Start Training Immediately** – Training usually occurs at the end of an implementation. Given that RCA changes the information provided, training is wider in scope.
- Multiple types of training are necessary:
  - Management training is provide in organizations where there is not a clear distinction between Financial versus Managerial Accounting
  - System maintenance training occurs to ensure that the organization has the knowledge in place to continually support the model
  - End User processing training for the users that will enter or access the data directly from the system
  - Conceptual Training to manager's to ensure they understand how to make appropriate decisions on the new information generated from the framework
RCA Implementation - Evaluation

- Perform a post implementation phase of Evaluation that considers the results of the shift to RCA.
- For organizations that are utilizing a phased approach, determine next area for expansion of the framework.
Implementation – Highlights

- Make a clear conceptual separation between internal and external accounting requirements
- Tie conceptual design to organizational strategy, performance measurement, and reward systems
- Get top management buy-in
- Use the management accounting initiative to drive change
- Management accounting system is management’s system not financial’s system
- Project will have important change management/integration component
- Balance information requirements with system maintenance
- How managers analyze and use information will ultimately determine the effectiveness of an RCA initiative
RCA Resources

• **Books:**
  - “The 123’s of ABC in SAP,” Dawn Sedgley and Chris Jackiw, for its quantity-based illustrations of ABC – a key feature of RCA

• **Case studies:**
  - Clopay A Plastics Extrusion Company – Strategic Finance magazine 10/2004 issue or the IMA’s Web site

• **Web sites:**
  - [http://www.rcainfo.com](http://www.rcainfo.com) – a free subscription service on Resource Consumption Accounting
  - [http://www.altavia.com](http://www.altavia.com) – a public library is available with articles and white papers
  - [http://www.imanet.org](http://www.imanet.org) – the Institute of Management Accountants – a discussion database/email exchange dedicated to GPK and RCA (Note: You would have to subscribe to the IMA’s List Server)
Your Turn!

Questions?

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