

by Richard Cascarino

# Performance Auditing of the I.S. Function



1

## Program

- Background to Performance Auditing
- Operational Auditing Methods and Techniques
- Establishing Measurement Criteria
  - Key Performance Areas
  - Key Performance Indicators
- Implementing VFMA
- Performance and Follow-up
- Feedback Session



2

## Courtesy of ValIT (2008)

- A 2002 Gartner survey found that 20 percent of all expenditures on IT is wasted—a finding that represents, on a global basis, an annual destruction of value totaling about US \$600 billion.
- A 2004 IBM survey of Fortune 1000 CIOs found that, on average, CIOs believe that 40 percent of all IT spending brought no return to their organizations.
- A 2006 study conducted by The Standish Group found that only 35 percent of all IT projects succeeded while the remainder (65 percent) were either challenged or failed.



3

## What Goes Wrong?

- **Problems in delivering technical capabilities**
- **Limited or no understanding of IT expenditures**
- **Business abdication of decision making to the IT function**
- **Communication gaps between the IT function and the business**
- **Questioning of the value of IT**
- **Major investment failure**



4

**ValIT is about getting Value out of IT – see  
ISACA**

**VFMA IS ABOUT VALUE FOR  
MONEY AUDITING**



5

## **VFMA : CONCEPTS AND DEFINITIONS**

- **VALUE FOR MONEY**
- **VFMA**
- **ECONOMY**
- **EFFICIENCY**
- **EFFECTIVENESS**
- **RELATIONSHIP WITH OTHER AUDITING TYPES**



6

## DEFINITION OF VALUE FOR MONEY

- "VALUE FOR MONEY DEALS WITH THE MEASURES WHICH ARE INTRODUCED TO ENSURE THAT ALLOCATED RESOURCES ARE UTILISED IN AN ECONOMIC, EFFICIENT AND EFFECTIVE MANNER "

## DEFINITION OF VFMA

- VALUE-FOR-MONEY AUDITING IS THE INDEPENDENT AND SYSTEMATIC EXAMINATION OF AN ORGANISATION FOR THE PURPOSE OF PROVIDING OBJECTIVE INFORMATION TO INDICATE WHERE IMPROVEMENTS CAN BE MADE IN THE ECONOMY, EFFICIENCY AND EFFECTIVENESS OF ITS OPERATIONS AND RESOURCES

## ECONOMY

- Refers to the terms and conditions under which resources are acquired.
- An economical operation procures resources in an appropriate quality and quantity at the lowest overall cost and at the right time.

## EFFICIENCY

- Is the relationship between goods or services produced and resources used to produce them. An efficient operation produces the maximum output for any given set of resource inputs.
- Alternatively, it has minimum inputs for any given level of goods or services produced.

# EFFECTIVENESS

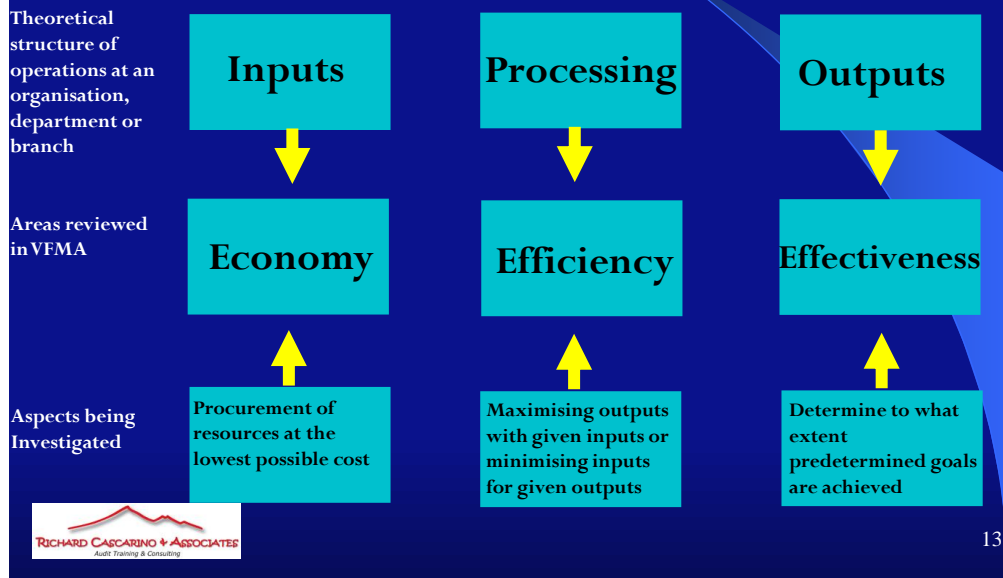
- Is the extent to which a programme achieves its goals or other intended effects.

## Canadian Comprehensive Auditing Foundation

# The Attributes of Effectiveness

<p><b>1 Management Direction</b> the extent to which the objectives of an organisation, its components' programmes or lines of business, and its employees are clear, well integrated and understood, and appropriately reflected in the organisation's plans, procedures, delegations of authority and decision-making process</p>	<p><b>7 Cost and Productivity</b> the relationships among costs, inputs and outputs</p>
<p><b>2 Relevance</b> the extent to which a programme or line of business continues to make sense with regard to the problems or conditions to which it is intended to respond</p>	<p><b>8 Responsiveness</b> an organisation's ability to adapt to changes in such factors as markets, competition, available resources or technology</p>
<p><b>3 Appropriateness</b> the extent to which the design of programme or its major components, and the level of effort being made are logical, given the specific objectives to be achieved</p>	<p><b>9 Financial Results</b> the matching of, and accounting for, revenues and costs and the accounting and valuation of assets, liabilities and equity</p>
<p><b>4 Achievement of Intended Results</b> refers to the extent to which goals and objectives have been realised</p>	<p><b>10 Working Environment</b> the extent to which the organisation provides an appropriate work atmosphere for its employees, provides appropriate opportunities for development and achievement, and promotes commitment, initiative and safety</p>
<p><b>5 Acceptance</b> the extent to which the constituencies of customers for whom a programme or line of business is designed judge it to be satisfactory</p>	<p><b>11 Protection of Assets</b> the extent to which important assets such as sources of supply, valuable property, key personnel, agreements and important records or information are safeguarded so that the organisation is protected from the danger of losses that could threaten its success, credibility, continuity and perhaps its very existence</p>
<p><b>6 Secondary Impacts</b> the extent to which other significant consequences, either intended or unintended and either positive or negative, have an impact</p>	<p><b>12 Monitoring and Reporting</b> the extent to which key matters pertaining to performance and organisational strengths are identified, reported and carefully monitored</p>

## VFMA: INTERRELATIONSHIP BETWEEN ECONOMY, EFFICIENCY AND EFFECTIVENESS



## VFMA: INTERRELATIONSHIP BETWEEN ECONOMY, EFFICIENCY AND EFFECTIVENESS

### ■ In other words:

- Economy
  - Can the same be achieved with less funds?
- Efficiency
  - Is optimal utilisation of resources being accomplished?
- Effectiveness
  - Are the predetermined policy objectives being realised?

## VFMA : SCOPE AND AIMS

- Scope limited only by auditor's mandate
- Sensitive nature of VFMA for policy decisions
- Aims
  - Improvement in quality of management information
  - Implementation of methods to report on performance
  - Improved utilisation of resources
  - Provision of measures for improved accountability/responsibility

## Audit Determination

- Management Intentions
- Comparative Risk Rankings
- Opportunity Rankings
- Resource Constraints
  - Men
  - Money
  - Materials
  - Machines
  - Methods
- Work harder or Work smarter
- Pareto Analysis
- Total Quality concept

## Significant Issues

- **Key success factors for I.S. / Users**
  - Are they measurable?
  - Are they measured now?
  - Can measures be designed?
- **Starting Point**
  - What is expected of our I.S. function?
  - What are they delivering?
  - Is the requirement consistent?
  - Is it consistently achieved?
  - How do we know?
  - Can it be improved?
  - Is there an improvement programme?

## Establishing Measurement Criteria

- **Defining the Audit Universe**
  - An "inventory" of all performance areas
- **Depends on the organisational structure**
  - Nature of corporate computing
    - centralised
    - decentralised
    - packaged solutions
    - extent of networking
  - Degree of autonomy granted to sites
  - Organisational relationships
  - Types of management processes

## Measurement Approaches

- **Objective assessment**
  - Removal of auditor prejudice
  - Involvement of :
    - I.S.
    - management
    - users
  - Determination of focus areas
- **Consensus approach**
  - Delphi techniques
  - Matrix formulation

## Steps in the Consensus Approach

- Identify the acknowledged processes in a specific audit unit
- Prioritise those activities as they relate to unit effectiveness
- Identify the effectiveness measurement criteria as relied upon by management
- Evaluate the appropriateness of the measurement criteria and make recommendations where appropriate
- Evaluate the effectiveness of the audit unit based upon the agreed criteria and make recommendations where appropriate
- Repeat for efficiency and economy

## Identifying the Processes

- Done in conjunction with management and the auditees
- Processes
  - Performance areas
    - separately identifiable
    - separately quantifiable
  - Identifiable deliverables
  - Macro level
    - Project Functions
    - Operations etc.
  - Micro Level
    - Feasibility Study
    - Outline Systems design etc.



21

## Means of Identifying

- Brainstorming session
  - Auditors
  - Management
  - I.S. staff
  - I.S. users (if applicable)
- Frank discussions on functional areas with regard to
  - :
  - Efficiency
  - Effectiveness
  - Economy
- Development of a written list of auditable areas
- Defined by one or two sentences

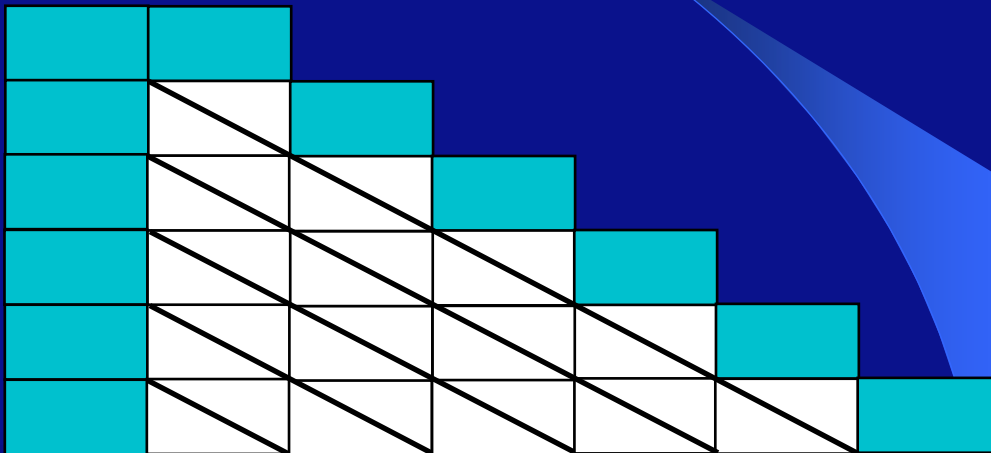


22

## Ranking of Processes

- With relation to *EACH* of the three Es
- Comparison ranking
  - Only three choices
    - A is more critical
    - B is more critical
    - Both are equally critical
  - All participants must be up-to-date with the processes involved (the Delphi team)
  - All team members have one vote each time

## Comparison Ranking



## Using the Ranking Sheet

- Place all the processes in the boxes marked in blue
- Taking each pair of activities, each member of the team votes on the relative importance *to this "E"*
- Votes are placed on the sheet (white)
  - on the left if voting for the left
  - on the right if voting for the right
- Votes are counted
  - Horizontally on the left plus
  - Vertically on the right
- Result is a comparative ranking of all processes

## Evaluation

- For each of the three Es :
- Place each process on the evaluation sheet
- Identify with the group those factors which can make or break the process
- Identify the measurement criteria which management rely on to indicate success
- Evaluate the adequacy of the indicator
- Develop an audit programme of tests in order to establish an achievement rating
- Perform the tests
- Report and follow-up

## Evaluation Form

Process	Success Factor	Measurement Criteria	Achievement Rating

## VFMA : Implementation

- Information Session (or in planning phase)
- Collection of Evidence / Investigation of Techniques
- Analysis and Evaluation
  - Summarise information / evidence
  - Compare with audit criteria
  - Discuss and interpret
  - Identify and obtain additional information / evidence
  - Draft findings and solutions

## VFMA : Investigative Techniques

- Walk-through / Observation
- Research
- Interviews
- Studying Documentation
- Rumours / "grape-vine"
- Statistical analysis
- Employment of specialists



29

## VFMA : Reporting Phase

- Contents
  - Executive summary
  - Introductory section
  - Overview
  - Audit goal
  - Audit criteria
  - Audit findings
  - Audit symptoms / evidence
  - Cause / effects / conclusions
  - Recommendations
  - Summary
  - Appendices



30

## VFMA : Reporting Phase (continued)

### ■ Characteristics of Report

- Clear / logical
- Concise
- Objective
- Timely
- Structured
- Legible and error-free
- Professionally printed
- Proven facts only
- Focus on remedial action



### ■ Meeting of the Audit Steering Committee

31

## VFMA of IT

- It's not difficult
- But if you get stuck:
  - Richard Cascarino MBA, CIA, CFE, CISM
  - Cell: 1 970 291 1497
  - Tel: 1 970 367 5429
  - eMail: [rcase@rcascarino.com](mailto:rcase@rcascarino.com)
  - Web: <http://www.rcascarino.com>
  - Skype: Richard.Cascarino



32