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The Use of Efficiency Assessment Tools: Solutions to Barriers

George Yannis, Ass. Professor
National Technical University of Athens

Introduction

Efficiency Assessment Tools:
Methods used to judge the efficiency
of an intended measure/policy based on
the highest return in monetary terms

Basic Efficiency Assessment Tools:

- Cost-Benefit Analysis (CBA)
- Cost-Effectiveness Analysis (CEA)

Barriers to the use of Efficiency Assessment

- **Absolute Barriers:**

  - Intense contradiction between beliefs

  - Convictions and political cultures related to the principles of efficiency assessment

- **Relative Barriers:**

  Institutional barriers

  Technical barriers

  } Concern practical issues and not principles

Relative barriers may be overcome by implementing appropriate solutions.

Improving Technical Features of Efficiency Assessment

- Best practice guidelines
- Creating and maintaining a database
- Quality control system

Best Practice Guidelines (1/3)

- Establishment of **"best practice" guidelines** for the Efficiency Assessment methods and techniques can enhance **quality** and **uniformity** of relevant studies.

- "Best practice" guidelines concern the two main methods: **Cost-Effectiveness Analysis (CEA)** and **Cost-Benefit Analysis(CBA)**.

- These are related to:
  - Theoretical principles
  - Technical framework
  - Detailed valuation of all impacts of road safety measures (safety, travel time, pollution, and noise).

Best Practice Guidelines (2/3)

Guidelines for the following steps of **Efficiency Assessment Techniques**:

- Description of **project alternatives**.
- Estimation of **implementation costs**.
- **Safety effects** and **side effects** (on mobility and environment)
- **Valuation / monetising** all effects.
- Calculation of **present value of costs and benefits** and of efficiency measures (NPV, IRR).

Best Practice Guidelines (3/3)

Attention should be given to:

- **Mini**- and **maxi-CBA** and **computerised tools**.
- Distinction between **decision making at national and local level**, due to differences of project alternatives, applicable data and budgets for Efficiency Assessment.
- Situations with **multiple decision makers** and/or **powerful interest groups**, due to emphasis on the distributional effects.

Creating and maintaining a database (1/3)

Major practical barriers for Efficiency Assessment:

- Lack of information on **safety effects**
- Lack of information on **side impacts**
- Lack of information on **costs**
- Doubts on the **validity** of available values

Creating and maintaining a database (2/3)

- Arrangement of **existing evaluation studies** on effects of safety related measures on a **systematic basis.**
- Data on safety effects **retrieved**, **ordered**, **screened** and made **accessible** for CEA/CBA experts.
- Exploitation of **existing databases** of values (i.e. Norwegian Traffic Safety Handbook)

Creating and maintaining a database (3/3)

Establishment of a **European Database**:

- Access granted to a **European network of experts**.
- General typical **values of safety effects** at national and local level. Enable **comparisons** of local effects.
- **Uniform quality** of data on the measures implementation costs and on the effects on mobility and environment.
- **Regular updates** in accordance to last evaluation results in EU.
- European Road Safety Observatory (**SafetyNet** Project).

Quality control system

- Improvement of Efficiency Assessment quality by introducing **impartial quality control**.
- Permanent or ad-hoc **evaluation board** to judge CBAs on large-scale projects at national level.
- Stimulation of a **competitive market** for institutes executing CBAs.
- **Certification** of institutes highly specialised in CBAs.
- Establishment of appropriate **quality assurance procedures** by the EC.

Improving role performance of decision makers and analysis

Performing a proper Efficiency Assessment (1/3)

Close cooperation between decision makers and analysts

Questions to be answered:

- What is the **definition of the decision problem** (project alternatives, relevant impacts, equity issues)?
- Would an efficiency assessment be **feasible** and **useful**?
- Which **evaluation method** (CEA or CBA) would be adequate?

Performing a proper Efficiency Assessment (2/3)

Important issues to be discussed:

- Use of a **computerised tool**, mini- or maxi- CBA.
- **Presentation format** of the results.
- Involvement of other **interested parties**.
- **Timing** of the deliverables.

Performing a proper Efficiency Assessment (3/3)

How to support and structure this process of cooperation:

- **Training** and **education** of decision makers
- Introduction of an informal **professional code** for analysts
- Development of **legal framework** for decision making on infrastructural projects

Training and education of decision makers

- **Motivation**, **knowledge** and **skills** to overcome barriers.

- **Various forms of training** (classroom instructions in post academic courses, seminars organised by networks of decision makers, job-training) due to different types of decision makers.

- **Requirements**: Clear training objectives, clear programme elements, adjustment to specific needs and experiences, encourage learning from each other.

- Initiation of **training programmes** for decision makers by the EC.

Professional code for analysts

- Establishment of **standard procedures (code).**
  - **Checklists** of items to be initially discussed.
  - **Techniques** for questioning decision makers (presentation of alternative options and consequences).
  - Examples of **various types of deliverables** (CBA/CEA, mini/maxi, presentation formats).
  - **Model** for the terms of reference.
  - **Reporting** methods, depending to the target group (Efficiency Assessment expert users, non-experts users).
  - **Examples** of the use of CBA/CEA at national and local level.

Legal embedding

- CBA in decision making stimulated by **legal embedding** in certain decision making processes (e.g. decisions about large investments in infrastructural projects).

- **Too early** to recommend a general legal binding CBA for road safety measures.

- **More experience** is needed with the application of the best practice guideline.

- **Safety aspects** should be included as an inherent part of the procedure.