Performance Measurements
Designing a Generic Measure and Performance Indicator Model

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The measurement of performance is critical to the success of any organisation or project,...

... but current knowledge in performance measurement is insufficiently translated into practice.

Many issues and shortcomings are due to the absence of a comprehensive, overall model.
Propose a generic **measure and performance indicator model**, that incorporates the essential aspects of the performance measurement process.

Research questions concern:
- measurement
- performance measurement
- existing models
- model requirements
- model proposal
The translation of « qualitative » concepts such as relations and operations into appropriate « quantitative » relations and operations enjoying known properties.

[Roberts, 1979]

Measurement Theory:
- fundamental measurement
- scales and scale types
- derived measurement

Quality of measurement
The process of quantifying the efficiency and effectiveness of action. [Neely et al., 1995]

Research led to numerous recommendations and frameworks.
A measure is a standard of measurement that allows to represent a property of an entity in a quantitative manner.
A **performance indicator** is a strategic instrument which allows to evaluate performance against targets.
The model summarises the structural aspects of the performance measurement process.
measure and performance indicator model

Measure aspect

- Entity
- Property
- Correlation
- Base Measure
- Composite Measure
- Scale
- Scale Type

Diagram showing relationships between measure aspect, entity, property, correlation, base measure, composite measure, scale, and scale type.
measure and performance indicator model

Performance Indicator aspect
Prototype application

Purpose: evaluate the proposed model.
It builds upon a simplified version of the model.

Use cases:
- dashboard
- list all measures
- list all performance indicators
- display measure details
- display performance indicator details
Architecture proposal for a performance measurement system
Prototype architecture
Benefits of the **measure and performance indicator model:**

- better understanding of performance measurement
- design template for measures and performance indicators
- foundation to performance measurement systems

Future research may include:

- more thorough evaluation of the model
- quality of measurement
- measurements on data streams