

MERISE-BASED METHODOLOGICAL PROPOSAL FOR EVALUATING GOVERNANCE AND PERFORMANCE OF INFORMATION SYSTEMS IN FUNDS AND INSTITUTIONS FOR EMPLOYABILITY DEVELOPMENT THROUGH VOCATIONAL TRAINING

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Abstract

This study proposes a methodological approach based on the MERISE conceptual modeling method to evaluate the governance and performance of information systems (IS) in institutions and funds dedicated to employability development through vocational training.

The objective is to design a structured data model for IS governance and performance, enabling integration, monitoring, and evaluation.

The MERISE approach is used to model entities, associations, and processes describing governance (decision structures, policies, resources) and performance (indicators, results, impacts).

This proposal provides institutions with a decision-support tool capable of transforming fragmented data into strategic and predictive information.

Key words: Governance, Performance, Information Systems, Employability, MERISE, Evaluation, Vocational Training.

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1. Introduction

Funds and institutions responsible for financing and vocational training play a key role in employability development.

The effectiveness of their interventions depends on governance and the efficiency of their information systems.

The MERISE methodology, historically designed for information system design, can be applied as a framework for analyzing and governing these systems themselves.

2. Problem Statement and Justification

Traditional IT governance frameworks (COBIT, ISO 38500, ITIL) do not always model internal governance-related data.

The MERISE approach allows integrating these dimensions into a coherent semantic structure for a systemic and integrated evaluation of governance and performance.

3. Objectives of the Proposal

General Objective: To propose a MERISE-based methodology for evaluating the governance and performance of information systems.

Specific Objectives: Identify and model relevant data, develop conceptual and

organizational models (MCD, MOT), and integrate performance indicators into a decision-support database.

4. Conceptual Framework

Governance dimensions include: strategic alignment, risk management, data quality, and decision-making processes.

Performance dimensions include: technical, functional, organizational performance, and impact on institutional outcomes.

5. MERISE Methodological Proposal

The conceptual data model (MCD) identifies main entities: Institution, Information System, Governance Process, Indicator, Actor, Performance, Audit. The organizational model (MOT) describes the processes: collection, control, analysis, reporting, and continuous improvement.

Logical and physical models allow implementation and automatic dashboard generation.

6. Discussion and Perspectives

The MERISE method offers an integrated approach linking governance structures to observable results.

It formalizes evaluation data and establishes an evolving decision-support system.

Future perspectives include empirical validation, automated reporting, and AI integration for performance prediction.

7. Conclusion

Applying MERISE to IS governance and performance structures and valorizes strategic data in public and semi-public institutions.

This approach enhances transparency, performance, and sustainability in employability policy management.

8. MERISE Diagrams – Governance and Pilotage Flows

8.1 Conceptual Data Model (MCD)

The MCD represents the main entities and their relationships for governance and pilotage flows:

- Institution → manages → Information System
- Information System → evaluated by → Audit/Evaluation
- Audit/Evaluation → produces → Indicators
- Indicators → measure → IS Performance
- Governance Process → influences → IS Performance
- Actors → participate in → Governance Process

This diagram shows how governance data circulates and links to performance indicators.

8.2 Organizational Process Model (MOT)

The MOT describes treatments applied to governance and performance data:

- P1: Strategic IS Management
- P2: Audit and Evaluation
- P3: Indicator Monitoring
- P4: Analysis and Visualization
- P5: Continuous Improvement

These processes illustrate the flow of data collection, processing, and decision- making within the IS.

8.3 Logical Data Model (MLD)

The MLD translates the MCD into relational tables for implementation:

- Table Institution(id_institution, name, type, mission)
- Table Information_System(id_IS, name, objective, maturity_level, id_institution)
- Table Audit(id_audit, type, date, result, id_IS)
- Table Indicator(id_indicator, name, type, value, measurement_date, id_audit)
- Table IS_Performance(id_perf, dimension, score, period, id_indicator)
- Table Governance_Process(id_process, domain, responsible, maturity_level)
- Table Actor(id_actor, role, function, id_process)

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