



# UNIVERSITY OF CAPE COAST

COLLEGE OF HUMANITIES AND LEGAL STUDIES

SCHOOL OF ECONOMICS

DEPARTMENT OF DATA SCIENCE & ECONOMIC POLICY

DATA CURATION AND MANAGEMENT

Course Code - DMA 820

## Assignment

1. Outline six (6) Data Quality Performance indicators recommendable for meeting the vision of your organization. (One Page)
2. Identify and justify five administrative data point your organisation should prioritize for achieving for the next five years. (One Page)

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## **Six (6) Data Quality Performance Indicators for Ahanta West Municipal Assembly**

### **1. Introduction**

Data Quality Performance Indicators (DQPI) are measurable standards for assessing data accuracy, completeness, timeliness, consistency, validity, and integrity. In public administration, they ensure decisions are based on reliable evidence.

#### **Data Accuracy Rate (%):**

This indicator gauges how well data reflects actual values. For example, reported market tolls must match receipts and bank deposits. High accuracy prevents misinformation and budget errors.

#### **Data Completeness Rate (%):**

Completeness measures how fully required dataset fields are filled. For example, property rate records should include owner name, location, value, and payment status. Missing data can cause revenue loss and limit analysis.

#### **Data Timeliness Index:**

This checks if data is gathered, processed, and reported on schedule. For instance, monthly revenue reports should be submitted by the fifth working day to allow prompt action on issues like low revenue.

#### **Consistency Ratio (%):**

This assesses how uniform data is across different systems or departments. For example, IGF totals from Finance, and Revenue should match. Consistent data builds credibility with auditors, donors, and stakeholders.

#### **Error Resolution Turnaround Time (Days):**

This metric measures the average time to correct data errors. For instance, duplicate market stall entries should be fixed within two days to avoid inflated reports. Faster resolutions reduce the operational impact of inaccurate data.

#### **Data Integrity Compliance Score:**

Integrity involves protecting data from unauthorized changes or access. For example, requiring unique staff logins and logging all financial record changes for audits.

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## **Five (5) Priority Administrative Data Points for the Next Five Years**

### **2. Introduction**

Priority Administrative Data Points are key information categories an organisation must maintain to meet strategic goals, legal requirements, and enhance service delivery. For AWMA, focusing on these will boost performance and support long-term development.

#### **Internally Generated Fund (IGF) Records:**

This involves recording all locally generated revenues, such as market tolls, property rates, and business permits. Using an electronic payment system with real time receipts can reduce fraud and improve accuracy and traceability.

#### **Population and Demographic Data:**

This includes detailed statistics on population size, age distribution, gender, literacy levels, and household characteristics. If demographic data reveals a growing youth population, AWMA can proactively invest in skills development programmes to address unemployment challenges.

#### **Infrastructure Inventory Data:**

An accurate and regularly updated record of public assets such as roads, schools, clinics, water systems, and markets is vital. For instance, a GIS-based mapping of boreholes can help the Assembly monitor functionality, plan maintenance, and avoid duplication of efforts by development partners.

#### **Service Delivery Performance Data:**

This tracks coverage and efficiency in delivering essential services, including waste management, sanitation, and potable water supply. For example, recording the frequency of waste collection per community can help identify underserved areas and improve operational planning.

#### **Staff Performance and Human Resource Data:**

This consists of data on employee qualifications, training history, performance appraisals, and attendance records. Such information enables evidence-based decisions on promotions, redeployment, and targeted capacity-building initiatives.

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## References (APA 7th Edition)

1. Fox, C. (2023). Data quality metrics and key performance indicators: Benchmarking and assessing effectiveness.
  2. Informatica. (2024). Data quality metrics and measures. Informatica.
  3. Wang, R. Y., & Strong, D. M. (1996). Beyond accuracy: What data quality means to data consumers. *Journal of Management Information Systems*, 12(4), 5–33.
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