

Management Information System for Governance

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Governance Triangle

Government

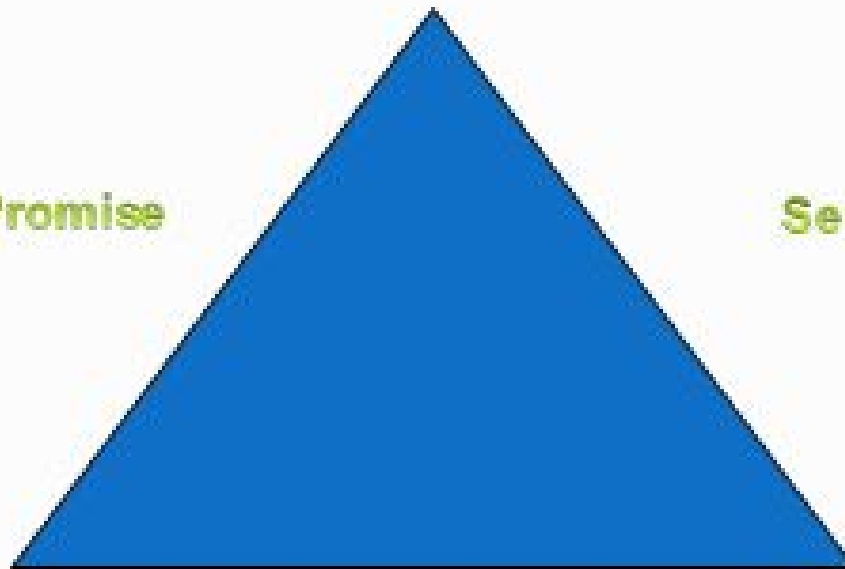
Enabling the Promise

Setting the Promise

Employees

People

Delivering the Promise



Information is critical

The information we have
is not what we want,

The information we want
is not the information we need,

The information we need
is not available.

Why need Information?

To ensure effective and efficient decision - leading to prosperity of the Organization.

Data and Information

Data vs. Information

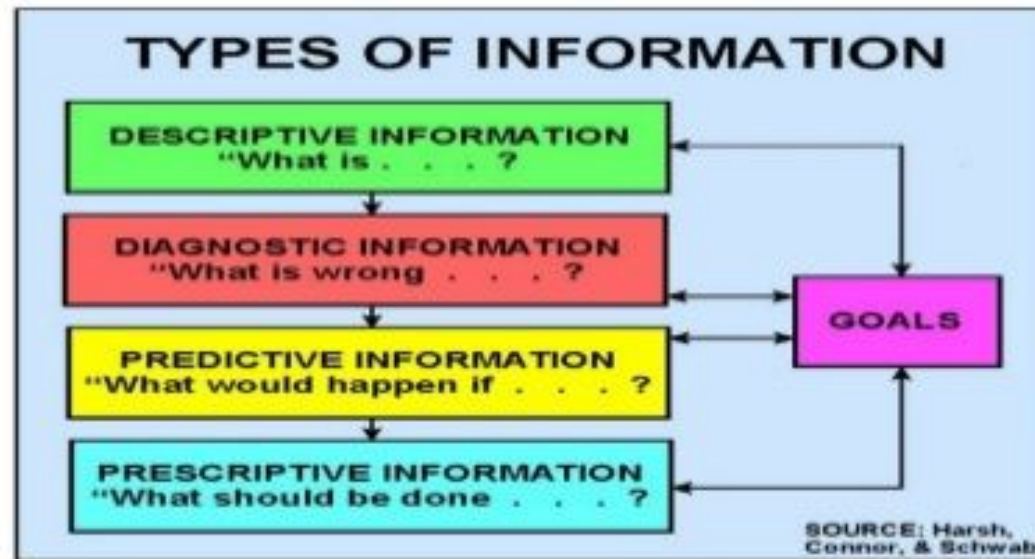
- Data
 - A "given," or fact; a number, a statement, or an image
 - Represents something (quantities, actions and objects) in the real world
 - The raw materials in the production of information
- Information
 - Data that have meaning within a context
 - Data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in the current or in the prospective actions or decisions of the recipient.

Data Manipulation

Example: customer survey

- Reading through data collected from a customer survey with questions in various categories would be time-consuming and not very helpful.
- When manipulated, the surveys may provide useful information.






Types and classification of Information



Information classification

- Action v/s no-action
- Recurring v/s non recurring
- Internal v/s external
- Planning Information: standards, norms, specifications
- Control information – reporting the status of an activity thru feedback mechanism
- Knowledge information – library reports, research studies

Characteristics of Useful Information

 Relevant	Information must pertain to the problem at hand. For example, the total number of years of education may not be relevant to a person's qualifications for a new job. Relevant information might be that the person has so many years of education in mechanical engineering, and so many years of experience. The information must also be presented in a way that helps a person understand it in a specific context.
 Complete	Partial information is often worse than no information. For example, marketing data about household incomes may lead to bad decisions if not accompanied by vital information on the consumption habits of the targeted population.
 Accurate	Erroneous information may lead to disastrous decisions. For example, an inaccurate record of a patient's reaction to penicillin may lead a doctor to harm the patient while believing that she is helping him.
 Current	Decisions are often based upon the latest information available, but what was a fact yesterday may no longer be one today. For example, a short-term investment decision to purchase a stock today based on yesterday's stock prices may be a costly mistake if the stock's price has risen in the interim.
 Economical	In a business setting, the cost of obtaining information must be considered as one cost element involved in any decision. For example, demand for a new product must be researched to reduce risk of marketing failure, but if market research is too expensive, the cost of obtaining the information may diminish profit from sales.

Information Presentation (An Art)

Data may be collected in the best possible way and processed analytically, however, if not presented properly, it may fail to communicate any value to recipient.

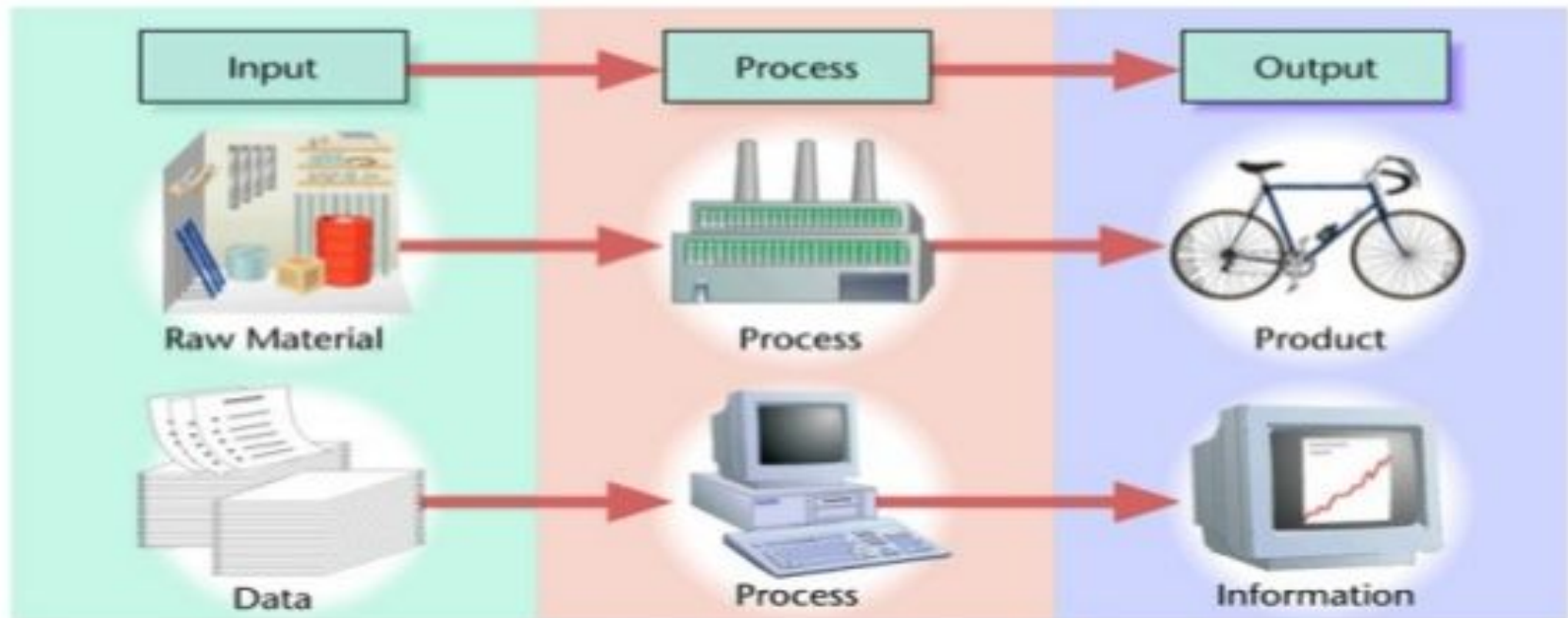
Communication of Information is affected by the methods of transmission, the manner of information handling and the limitations & constraints of recipients.

The methods used to improve communication are:

- a) Summarization: Too much information causes noise and distortion i.e confusion, misunderstanding and missing of purpose. Summarization suppresses the noise and distortion.
- b) Message routing: The principal here is to distribute information to all those who are accountable for the subsequent actions in any manner. This is achieved by sending the copies of the reports or documents to all the concerned people or users.

System

System: A set of components that work together to achieve a common goal. Computer-based Information Systems take data as raw material, process it, and produce information as output.



- MIS plays a critical role in implementation of programmes in terms of monitoring periodic progress.
- A well designed MIS facilitates flow of information among various levels and enables setting up of the necessary feedback mechanism for planning and management of a programme, project or policy.
- A comprehensive MIS is a necessary condition for taking informed and timely decisions including those related to operational, strategic and tactical ones.

CORE Dash Board – Govt. of AP

- CORE (CM Office Real-time Executive) Dashboard an initiative of Government of Andhra Pradesh is a visual display of the department's information which need to achieve one or more objectives; consolidated and arranged in a single frame so that the information can be monitored effectively by Honb'le Chief Minister at a glance. 33 State Government Departments are integrated in the CORE Dashboard. Various key statistics of concerned departments are published in the CORE Dashboard, which may provide key insights of Department activities.

- Purpose of CORE Dashboard
- CORE Dashboards is designed and developed to address wide range of objectives & monitoring the strategy of Government of Andhra Pradesh which can check on department's activities in order to achieve service-level targets.

- Characteristics of Core Dashboard
- 1) All the visualizations pertaining to all departments fit in a single screen.
- 2) It displays the department's key performance indicators that can be monitored.
- 3) Indicators such as filtering and drill-down can be used in dashboard; department's key performance indicators actions which also include lag & lead performances district wise etc.
- 4) The Core Dashboard can be accessed by the Departmental HODs/Officials to monitor effectively & take necessary actions if needed.
- 5) The data gets automatically updated without any assistance from the user. The frequency of the data updating will vary with the departments. Dashboard data gets updated on a daily basis.

- Conventionally, governance structures have been characterised by rule-based approaches that primarily focused on process regulation, compliance with centrally prescribed standards and rules. Performance has been thus judged not by the results or outcomes but by compliance with processes and inputs. This has severely undermined the performance of the development projects or programmes.
- However, in a changed economic milieu, the performance is evaluated by results or outcomes not by the outputs;

- A large number of centrally sponsored and central sector schemes are implemented through different Ministries across the country. With enormous diversity in the implementation hierarchy across space, it has become all the more important to have information about the physical and financial details of a project or a programme in order to monitor the progress. The Eleventh Five Year Plan underscored the deficiencies in the existing accounting system for the Plan schemes and its inability to support informed planning, budgeting and effective monitoring of these schemes

MIS has to be derived from the Log Frame

- The MIS must describe performance and impact indicators with a clear inter se relationship. However, indicators for outputs are mainly used for monitoring and no separate indicators are used for activities or inputs. Indicators must be relevant, realistic, specific and readily available. In the implementation framework, these involve inputs activities and outputs, while outcomes and impacts are parts of the result based monitoring and evaluation; though all these must function as an integrated whole.
- The log frame must clearly outline the defined and realistic objectives and assumptions that describe how the interventions are designed to work. Log-frame hierarchy must identify the inputs, activities, outputs, programme objectives and outcomes with explicit clear links.

- what is a log frame?
- Log frames originated from a planning approach used by the US military (maybe this is why they're seen as a bit rigid) and was later adopted by US Aid in the 1960s for development projects.

- The structure of a log frame
- A standard log frame is divided into four rows, which are your long- to short-term objectives ranging from top to bottom:
 - Goal (overall aim).
 - Outcome/Purpose (what will be achieved, who will benefit, and by when).
 - Outputs (specific results the project will generate).
 - Activities (what tasks need to be done in order for the output to be achieved).
- These are achieved and measured by the headings from left to right:
 - Project summary (explaining the objectives).
 - Objectively verifiable indicators (how you'll measure the achievements).
 - Means of verification (how you'll collect the information for the indicators).
 - Risks and assumptions (external conditions needed to get results).

	PROJECT SUMMARY	INDICATORS	MEANS OF VERIFICATION	RISKS / ASSUMPTIONS
Goal	10% increase in the number of Grades 5-6 primary students continuing on to high school within 3 years.	Percentage of Grades 5-6 primary students continuing on to high school.	Comparison of primary and high school enrolment records.	N/A
Outcome	Improve reading proficiency among children in Grades 5-6 by 20% within 3 years.	Reading proficiency among children in Grades 5-6	Six monthly reading proficiency tests using the national assessment tool.	Improved reading proficiency provides self confidence required to stay in school.
Outputs	1. 500 Grade 5-6 students with low reading proficiency complete a reading summer camp	Number of students completing a reading summer camp.	Summer camp attendance records.	Children apply what they learnt in the summer camp.
	2. 500 parents of children in Grade 5-6 with low reading proficiency help their children read at home.	Number of parents helping their children to read at home.	Survey of parents conducted at the end of each summer camp.	Children are interested in reading with their parents.
Activities	1. Run five reading summer camps, each with 100 Grades 5-6 students who have low reading proficiency.	Number of summer camps run.	Summer camp records.	Parents of children with low reading proficiency are interested in them attending the camps.
	2. Distribute 500 'Reading at Home' kits to parents of children attending summer camps.	Number of kits distributed.	Kit distribution records.	Parents are interested and able to use the kits at home.

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Outputs	500 Grade 5-6 students with low reading proficiency complete a reading summer camp	Number of students completing a reading summer camp.	Summer camp attendance records.	Children apply what they learnt in the summer camp at school.
Activities	Run five summer reading camps, each with capacity for 100 Grades 5-6 students.	Number of summer camps run.	Summer camp records.	Parents of children with low reading proficiency are willing to send them to the camp.

THEN

IF

AND

Authentication and Validation

The data need to be collected at disaggregated levels and it must be ensured that the data are collected with agreed indicators. The database must reflect the log frame structure, and comprise all the activities with budgets, and all the outputs with their respective indicators. The system should be able to quickly collect and edit data, summarize results and be able to adjust and correct errors promptly. Traveling of data from source area to web portal should be quick and supported by ICT infrastructure.

Data Reporting Mechanism

- Activities are generally reported on a recurrent basis, yet these can be reported as per programme strategy depending on the nature of the project or the programme. The information should be such designed as to expedite the reporting of the information. Efforts are needed to bring out analytical reports quickly in the form of fact-sheet that ought to give signals for policy purposes. However, there appears to be a gap in data generation and reporting system in some of the flagship programmes that often hinder in realization of the project or the programme

Accessibility of Data for Public

- The data and information need to be fully accessible to and usable for all the stakeholders including researchers and the community at large. The data collected at local or community level must bear the ownership among the people and eventually benefit the people from the information generated. The information should not only flow to the national monitors but also be made available to the community.
- It has been noted that in some of the flagship programmes, either no feedback system exists or the existing mechanism is weak (for example, Irrigation, Rural Telephony, Rural Electrification, Universalization of Elementary Education (SSA), Mid-Day Meal Scheme, and Integrated Child Development Service (ICDS)).

Utilization of Data

- Accessibility of data helps in using the data for analysis and further research, which eventually helps improve the implementation framework. The data can be utilized by the variety of stakeholders. The intent should be made transparent enabling the participation of the major stakeholders in the utilization of the data with a proper feedback mechanism.
- The MIS data are primarily used for monitoring purposes and there is virtually no linkage between the MIS information with that of evaluation studies. It has been noted that M&E functions in a compartmentalized manner rather than articulating relationship between the two. Enormous data are generated in every programme but there is very little utilization of these data in terms of generating analytical reports. Even evaluation reports do not use the data generated by these programmes.

Connecting Output, Outcome and Survey Data

- It is often observed that there is a weak connection or linkage between the implementation framework and the outcome framework within the perspective of the theory of change. This arises due to lack of clarity on the indicators and assumptions of the log frame. It is also noticed that there is a divergence between the project or the programme data and that of large survey data that often makes difficult to aid policy

User-friendly Website

- While developing a website, the users' needs should always be in the forefront of the decision-making process. The design and development process must create a site that satisfies the visitors with customer-focused content. The website should have an in-built feedback device. Feedback is an essential component of the evaluation process that provides the link between the past and future activities. In order to ensure that the results of evaluations are utilized in future policy and programme, it is necessary to establish feedback mechanisms involving all the stakeholders.
- But most of the flagship programmes in India though have dedicated websites but in some cases these do not have any feedback device and lack user-focused design.

The Way Ahead

- It is of paramount importance to institutionalize a credible MIS in every major project or programme with a detailed conceptual framework. It has been noted that in many of the programmes or projects there have been some sort of MIS for tracking the progress, but still there is a scope for further improvement so that it becomes evidence based management tool.
- Massive public investments are being made on development programmes and projects and obviously governments and other stakeholders want to know how well and to what extent the delivery mechanism is achieving the desired goals or intents of policies. For instance, in many flagship and iconic programmes huge sums are being invested and without any credible MIS and monitoring system in place the efficacy and effectiveness of these programmes will remain largely unknown.