

Planning for a Management Information System (MIS)

An MIS is a computerized database of financial, administrative and programmatic information organized and programmed in such a way that it produces regular reports on operations for every level of management in an organization. The main purpose of the MIS is to give managers feedback about their own performance; top management can monitor the organization as a whole. Information displayed by the MIS typically shows "actual" data over against "planned" results and results from a year before; thus it measures progress against goals.

Below is a list of steps to follow when planning to adopt an MIS.

1. Define Outcomes

Investments in management information systems can help strengthen your project/organization, but there are limited resources. Make a clear articulated case to secure funding and prioritize the effort.

- Identify tangible benefits that an MIS will bring to your organization
- Define the scope of the MIS (organizational level, regional level, country level)
- Develop measurements to assess whether MIS is successful

2. Form your team

The successful implementation of an MIS requires a combination of people and technology.

- Determine resources and skills needed for each of the three phases of an MIS (develop, scale, and sustain)

3. Define what your system needs to do

Documenting system requirements and communicating them well is a crucial. Lack of understanding between the future users of a system and the people who design it is one of the main causes of frustration, delays and cost overruns in IT projects.

- Conduct a self-inventory to map out what information systems and reporting relationships already exist
- Develop shared measures and outcomes (if they don't exist already)
- Establish common benchmarks, and harmonize reporting requirements
- Describe high-level business requirements and how key types of individuals (e.g. managers, directors, auditors, donors) will use the MIS data.
- Determine technical requirements for your specific context. E.g., if electricity and/or Internet connectivity is a problem in your context, plan for:
 - Offline data entry
 - Automatic transmission of data to a central database when communication networks are available
- Identify how newly computerized processes link to retained manual and paper-based processes

4. Find the right solution

There is a range of potential solutions depending on your resources and needs. This includes buying or building your system, selecting open-source or proprietary systems.

- Identify the best system for your organization depending on your resources and expected use. Software models can range from custom-developed software (i.e. build a software system from scratch) to Software as a service (SaaS) (i.e. a database and application hosted on remote servers, and software is sold (or offered freely) as a service that can be contracted per user and per month or year).
- SaaS applications are particularly useful because they:
 - Eliminate need to invest in local servers
 - Eliminate need for in-house IT staff
 - Incorporate on-demand training and support
 - Often incorporate a pay by the drink cost model (obviate large up front investments)
 - Easier to transfer to local institutions

5. Select the right vendors

Asking the right questions when selecting a vendor will help you select the best vendor for your needs.

- Evaluate the merit of each proposal
- Evaluate the cost of each proposal and select a vendor
- Make a contract or memorandum of understanding

6. Estimate implementation and operating costs

Estimate project cost for pilot, scale up, and maintenance

- **Pilot:** the functional, technical, and organizational complexity of the project drives costs. Costs do not vary significantly for a large or a small country.
- **Scale:** the number of future users and the cost per user to deploy it are the most important variables. The cost per user depends on the way in which users will access the system (for example, desktop computer, mobile phone, paper) and their training needs.
- **Sustain:** Apart from the number of users, the selected technology is critical here. For example, any solution that requires local software installation and maintenance will be more expensive than a centralized system, such as a web-based or cloud system.

7. Create an implementation plan

Develop an implementation plan for the MIS development, pilot, and scale up.

- Define work plan for development, pilot. and scale up. Don't forget to include training of MIS users.
- Track milestones

8. Understand and manage project risks

The seven steps above should lower project risk by aligning requirements to organizational objectives, understanding costs, planning appropriately, and choosing the right vendors. In addition, consider the following type of risks below.

- **Lack of governance:** Many cite lack of leadership buy-in as the most important factor for project failure.
- **Poor management:** The management team lacks the technical capacity or the organizational authority to provide the project the stability it needs.
- **Development risk:** Relates to changing user requirements and a misunderstanding of the technology that is being used.
- **Deployment risk:** Stems from a failure to manage the changes that will affect the organization because of the new information system.
- **Operational risk:** Arises when the organization is not ready to support newly introduced technologies over the longer term.

Adapted from:

- 2013, *Planning an information systems project*, WHO, PATH. Available at http://www.path.org/publications/files/TS_opt_ict_toolkit.pdf
- *MID Readiness Checklist*. National League of Cities. Available at <http://goo.gl/74Yyil>
- 2015, *TechChange, Technologies for Monitoring and Evaluation course*.