

# UNIT 148 – UPSC - Information Resource Management (Management Information System)

Information Resource Management, abbreviated as IRM, is a belief of management that identifies and calls for the creation, identification, capture and management of information resource as a corporate asset to support in devising policy and decision making. IRM is a theoretical and practical approach to manage government information. Information is regarded as a important resource which should be managed like other resources, and should contribute to accomplishing organisational goals and objectives. IRM offers an integrated view for managing the complete life-cycle of information, from creation, to distribution, to archiving and/or destruction, for maximising the overall usefulness of information, and improving service delivery and program management (Jack Rabin, 1987)



Information Resource Management is rooted in historical time. Theorists had elaborated three disciplines in IRM since its evolution that included database management, records management, and data processing management. IRM also grew and developed in two societal sectors: the private sector and Federal agencies.

**Database Management:** The database management is important element of Information Resource Management has which uses the terms data administration and database administration. This standpoint is concerned with establishing and enforcing standards to support a worldwide view and integrated use of enterprise data. From the beginning, the need for the coordination and control of organizational data was recognized. Bulk of literature denotes the in the development of more competent information storage and retrieval methods in the 1960's (Gillenson, 1985). Both the government and the private sector contributed to this effort. In the beginning of 1970's, documents describing the appropriate database environment explained a staff function: data administration (GUIDE International Corporation, 1973). The management scope was almost entirely technical. Usual functions were those necessary to synchronize database management system activities and application programs. However, this function provided less control over data

redundancy or planning across multiple systems (Durell, 1985). The main qualifications for workers to execute this function were technical. In the decade of the 1970's and 1980's, there was an increased growth in the use of databases and database management systems, with a steady change toward data management as database management systems and these were recognized as only one part of the management of data. The concept of treating data as a true organizational resource had emerged along with a new business position: database administrator. The role of the database administrator was to describe the rules that control the database and to determine the manner in which the data would be stored. The capacity of responsibility was the creation, design, and operation of databases. In the 1970's, as database usage grew and became more incorporated, the issues of ownership of data and programs and stewardship over the data required to be addressed (Sibley, 1973). The data administration function interacted with the data processing department in one of numerous ways such as from a small independent recommended group to a larger support group with technical expertise in data base applications development, database definition, and data dictionaries..

**Records Management:** The records management approach to Information Resource Management has evolved from in library science, records management, administrative management, and other disciplines concerned with the effective storage, retrieval, and utilization of documents in organizations. Basically, Records management is a process of ensuring the proper creation, maintenance, use and disposal of records to achieve efficient, transparent and accountable governance. This was the first area to use the term IRM to describe a consistent and comprehensive approach to manage information.

Information Resource Management represents a comprehensive view of the enterprise and does not focus on the requirements of a particular group or department. Information Resource Management is the management of data and information that includes management of such information resources as computer hardware, software, communication, internal and external databases, planning and review as well as the integration of these resources for the support of managing information for organization as a whole (Jack Rabin, 1987). An efficient strategic Information Resource Management plan explains an organization's information requirements and strategies to satisfy them. There are two facts responsible for the evolution of Information Resource Management. The notion of knowledge work was introduced in the 1960's followed by the concept of the "post-industrial society" in the beginning of 1970's. Information economics contributed the argument for treating information as a resource. These categorizations were widely described in the 1970's as "the information age" and the "information economy". Such expressions recognize that information processing has become a basic component of industrialized nations (Mendenhall, 1979). Venkatakrishnan proposed IRM as "the discipline of comprehensively managing an enterprise's information requirements" (1983, p.175). He presented IRM in the form of an Information Cycle which provided the basis for a strategy for bringing together the several components of information resource management. Connell (1981b), Stonecash has defended IRM as "a response to the increased complexity of today's organizations and to the increased complexity of the environment in which today's organizations operate" (1981). There was a debate on the concept of Information Resource Management among theorists. Connell (1981) has argued that In point of fact, the Information Resource Management theory is full of holes. Its strident support by the sages of information processing lend credence to the belief that IRM is an ill-disguised attempt to provide a sinecure for aging data processing managers. In theoretical literature, King and

Kraemer (1987, p.1) raised concerns about the validity of the Information Resource Management concept and argued that Information is not a resource in the conventional sense of the term, and economic techniques for dealing with information as a resource are lacking.

**Information Resource Management as the management of information as a resource:** The intent of Information Resource Management is to manage Information. King and Kraemer (1987) stated that "within the federal government, the most influential recent articulation of the IRM theory is found in the reports of the President's Commission on Federal Paperwork," which tackles how the federal government might modernize its management of information. The authors offer outlines of definitions leading toward the IRM concept in the form of three propositions that include organizations are systems agreeable to systematic controls, information is an organization resource and should be treated as such and an organization can enhance its effectiveness and efficiency by managing information as a resource. The authors then proceed with a dialogue of the great difficulties to be encountered when one attempts to operationalize these three propositions in practice.

**Information Resource Management as a way to boost information systems quality:** This view represents that Information Resource Management deals with the enhancement of information systems (applications) quality, their development, maintenance, and evolution, and to improve the quality of the information produced by specific systems.

**Information Resource Management as the management of computing resources:** In this area, Information Resource Management characterizes the management of information technology in an organization. These resources include computers, associated technology such as communication systems, and human resources and methodologies for systems development for the planning and control of the resources. These resources are used to obtain, store, manipulate, recover and distribute data resources which expectantly will be helpful to end-users, thus becoming information for the particular end-users at that point in time.

The definitive goal of an effective IRM strategic plan is the design, delivery and maintenance of a seamless, integrated information resource environment that responds effectively to the need for cross-functional flows of information while providing the flexibility and adaptability to respond to incessant business and technological change. The requirement is for a set of data transport capabilities and data management interfaces that are usable by each business function, but unique to and owned exclusively by none of them. Without a plan there are no objectives, no measures and, ultimately, no results. There are three major steps involved in planning for the introduction of IRM practices into an organization:

Determine strategic information resource requirements.

Baseline the existing environment.

Design the IRM.

## **IRM has Numerous Benefits**

1. IRM assists in development of systems that are targeted to support strategic and operational objectives;

2. In IRM , there is increased integration of technologies, which improves the sharing of information across the organization and makes it easier to obtain information for changing decision-making needs;
3. IRM Assist in identification and adoption of appropriate information technology standards, minimizing dependence on specific suppliers of hardware or software;
4. IRM helps in identification of opportunities to improve the relevance and adequacy of information provided and activities performed;
5. IRM offers a technological infrastructure that will support the strategic business plan;
6. IRM helps in minimization of duplicate, and possibly inconsistent, data and processing capabilities within the organization's portfolio of information systems;
7. There is prioritization of projects to be implemented and greater cost-justification of system development and maintenance activities.

The future achievement of IRM will depend upon an organization's ability to change its management focus from the information professionals to end users. The objective will be to achieve the benefits of end user computing without losing data consistency and integrity that information managers have worked so hard to establish.

To summarize, the fundamental perspective of Information Resource Management (IRM) is to design, inventory and control all of the resources necessary to give information. When standardized and controlled, these resources can be shared and re-used throughout the company, not just by a single user or application.