Managing with computers [Discussion paper]

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Managing with computers

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EFFECTIVE MANAGEMENT, the key stone in any organisation, is basically regarded as the main criteria for an organisation to grow and to be successful. Regardless of the quantum of the production of the organisation, or how good the services it provide to the consumer, or how much the capital amount it has invested in it and how far it has proposed to expand it's services, unless it is effectively managed, the ultimate result will be a failure.

Case Study

Take for example, the water supply and sanitation sector of the Kerala State. The State itself is very small and is located in the southern most tip of INDIA. The State has an area of 38863 sq. km. with an urban population of 767,637 and rural population of 21,356,457 persons. At present, 64.5 % of the urban population and 44.75 % of the rural population are supplied with protected water supply through 1700 big and small water supply schemes. There are at present, 505,000 house service connections and 150,000 street fountains existing in the State. Mostly surface water is taken as the source in the State - the state is having 44 rivers originating and flowing through the State - and the other source being ground water . Every year, more than 150 big and small schemes are being commissioned and more than 150 schemes are being taken up for execution. The ultimate aim is to cover the entire population of the state with protected water supply by 2000 A.D. and the total estimated cost that will be involved on this account will be around Rs 1800 crores. Sanitation is not included in the above projection.

Role of computers

As we can see from the above, a great amount of information has to be stored, retrieved, organised, sorted out, analysed and processed and has to be used for design, monitoring, operation and maintenance, physical and financial control, future planning and development, etc by the Manager. Accuracy and Availability of informations is the main criteria for effective management. The manager should get all the necessary informations as and when required at incredible speed for him to assess the informations provided to him and to take authoritative and important decisions. Providing rapidly, all these informations to the manager, reduces the error factor and the time needed to take decisions which in turn increases the speed with which it can be implemented. This is the main role of computers - ie., to provide accurate and all relevent informations as and when required. It may be noted here that computers may be regarded only as a "tool" to be used for effective management and computers should never be considered as a replacement for the human manager who will use his experience, skill and judgement in taking decisions.

Managing water supply and sanitation organisations with computers

The application range of computers in management is so vast that it will not be possible to list out all these in this presentation. However, some important systems where computers can be utilised in the water supply and sanitation sectors is given below:

- **Management information system**
  Comprising of planning, inventory control, operation and maintenance, personnel and project monitoring.

- **Design, forecasting and modelling system**

- **R&D, quality monitoring and training system**

- **Account system**
  Comprising of revenue and expenditure

- **Communication system**
  Effective communication is essential within the organisation for conveyance of information among the members of the staff within the organisation and between the members of the organisation and their consumers and suppliers. Communication between computers can be linked within the same building (local area network) and also linked over a long distance (external network) which enables a centralised store of datas for the manager.

Conclusion

All the developed countries have gone far ahead in the utilisation of computers in management. Wide application of computer technology can be seen in their water supply and sanitation sectors.

In the developing countries, with the advent of more and more new water supply schemes and sanitation schemes, more and more related problems are being faced by the implementing organisations in managing them effectively and the only way out is " **Managing with computers**".