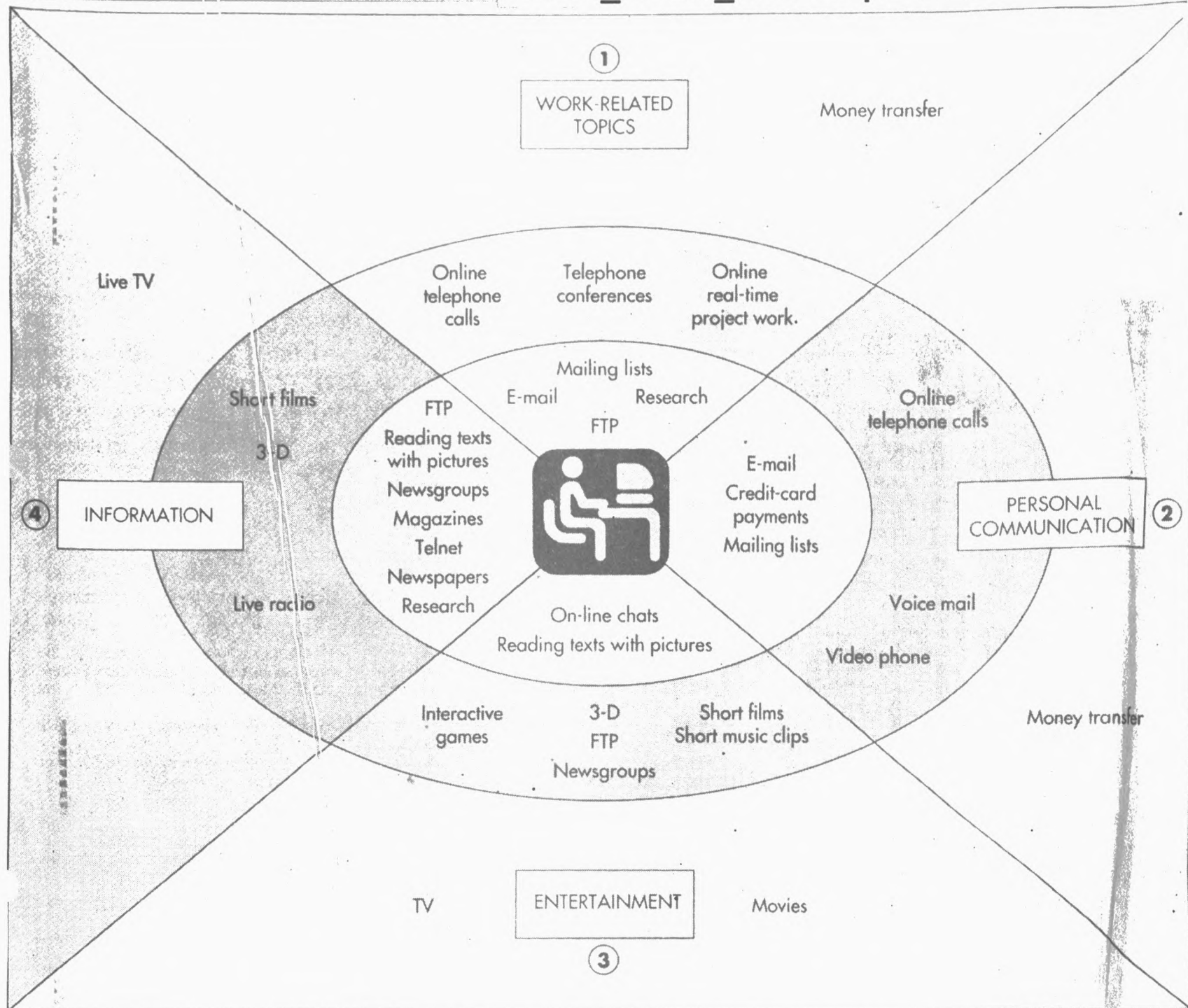




Modern trends in management

Role of information technology in business re-engineering

DR. K. KUHATHASAN
CEO, Cenlead

Philosophies of 'how to manage organisations', are changing. Many forward-thinking managers are organising their employees around tasks and responsibilities, rather than around the traditional functional disciplines. These organisations construct a team around them.

Managers are becoming more like coaches, working to lead teams and remove obstacles that prevent team members from accomplishing their goals. There has been a renewed focus on identifying and satisfying the needs of customers.

Organisations operate within a very competitive environment, and one important consideration of management is how to compete effectively.

At one point the dominant strategy options were to become a low-cost producer, to differentiate the products, or to obtain a market niche.

Recently, some organisations have been trying to accomplish all three. The term mass customisation has been used to describe the strategy of providing products that are configured assembled to the needs of each individual customer, but doing so for a very large customer base.

Importance of IT

Long-term survival and growth require an efficient and effective organisation that satisfies all the needs of its customers.

Information Technology (IT) plays an important role in the internal functioning of organisations, as well as in their ability

to respond to change and satisfy their customers' needs.

Although it is possible for some organisations to thrive without the effective use of IT, it is becoming more and more unlikely.

The business opportunities emerging through the development and application of IT are enormous. But to take advantage of these opportunities requires a basic understanding of the changes IT can bring to individuals, organisations and society.

As organisations become more dependent on information systems, they also become more vulnerable to system failures, abuses or errors.

As with any other powerful tool, IT needs to be managed carefully. The effective use of IT requires time and resources and, in today's world, needs to be a top priority for management.

Information technology may be used in numerous ways to support processes and process improvement. Examples include automational (eliminating human labour), informational (capturing information to better understand the process), sequential (changing process sequence, enabling parallelism), tracking (monitoring the process), analytical (improving analysis and decision making), geographical (coordinating processes across distances), integrative (coordinating tasks), intellectual (capturing and distributing knowledge and expertise), and disintermediating (eliminating intermediaries or intermediate steps).

Role of Information Technology

The new team-based organi-

sation incorporates an entirely new set of assumptions about the role of a manager. Rather than being a traditional 'boss', the new manager acts as a facilitator for self-managed teams who can employ technology effectively to store, manage, transform, and communicate information.

To create a shared vision for the team, the new manager can use technology-based channels to influence people who then solve problems and make decisions.

Managing emerging technologies

One of the risks created by IT is the threat of emerging technologies, or the possibility of a competitor achieving a great leap in performance by using a new technology. For example, an insurance company gained substantial market share in the life insurance business by giving its agents portable computers before any of its competitors.

Agents were able to give a policy quote to a customer within minutes in a face-to-face meeting (by using a combination of portable computers and expert systems) rather than days (the agent needed to go back to the office and compute the policy on the firm's main-frame).

The rapid advances in information technology result in continual changes to an organisation's environment. The possibility always exists that new technology will be developed that could pose challenges and/or opportunities for an organisation, ranging from threats to its entire existence to the development of a slightly better way to service customers.

The responsibilities of the emerging technology specialists include the following:

1. Monitoring the environment for technologies that have some potential to help the organisation.
2. Evaluate selected new technologies to determine how they might best be employed.
3. Assist in the adoption and assimilation of new technologies into the organisation.

Types of information

To make the appropriate decisions - strategic, tactical, operational - the different levels of managers need the right kind of information: structured, semi-structured, and unstructured.

In general, all information to support intelligent decision making at all three levels must be established. It is, accurate. It must also be complete, including all relevant data, yet concise, including only relevant data. It must be cost effective, meaning efficiently obtained, yet understandable. It must be current, meaning timely, yet also time sensitive, based on historical, current, or future information needs. This shows that information has three distinct properties:

1. Level of summarisation
2. Degree of accuracy
3. Timeliness

Management information systems

Types of computer-based information systems provide information for decision-making.

1. Transaction processing systems assist lower managers

and workers in making operational decisions.

2. Management information system help middle managers to make tactical decisions.
3. Decision support systems and executive information systems support top managers in making strategic decisions.
4. Expert systems are used at all levels for specific problems.

Top managers make strategic decisions using unstructured information. Middle managers make tactical decisions using semi-structured information. Lower-level managers make operational decisions using structured information. The purpose of a computer-based information system is to provide managers (and various categories of employees) with the appropriate kind of information to help them make decisions.

Executive information systems

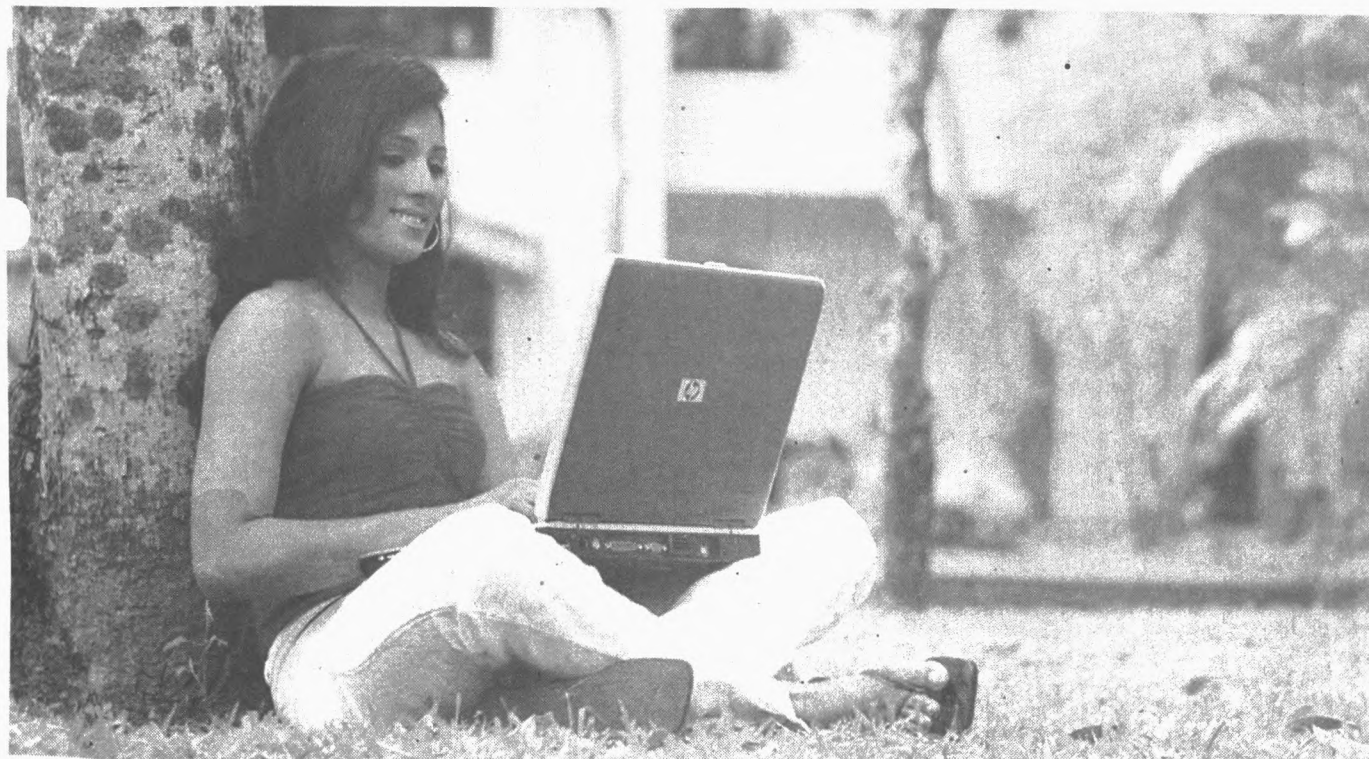
An executive information system (EIS) is an easy to manage system for top level managers and specifically supports strategic decision making.

An EIS is also called an executive support system (ESS).

It draws on data not only from systems internal to the organisation but also from those outside such as news services or market-research databases.

An EIS might allow senior executives to call up predefined reports from their personal computers, whether desktops or laptops.

They might, for instance, call up sales figures in many forms by region, by week, by fiscal year, by projected increases.



As organisations become more dependent on information systems, they also become more vulnerable to system failures, abuses or errors. As with any other powerful tool, IT needs to be managed carefully. The effective use of IT requires time and resources and, in today's world, needs to be a top priority for management.