

Unit -1

MIS



SMART SYSTEMS AND SMART WAYS OF WORKING HELP TOYOTA BECOME NUMBER ONE

Toyota Motor Corporation is about to surpass GM as the world's largest auto maker, selling over 9 million vehicles in 2006. It is also considered the world's best auto maker. The quality and reliability of Toyota vehicles are the gold standard of the industry, even among its lower-priced models. Customer loyalty is so high that Toyota can make sales without heavy discounting.

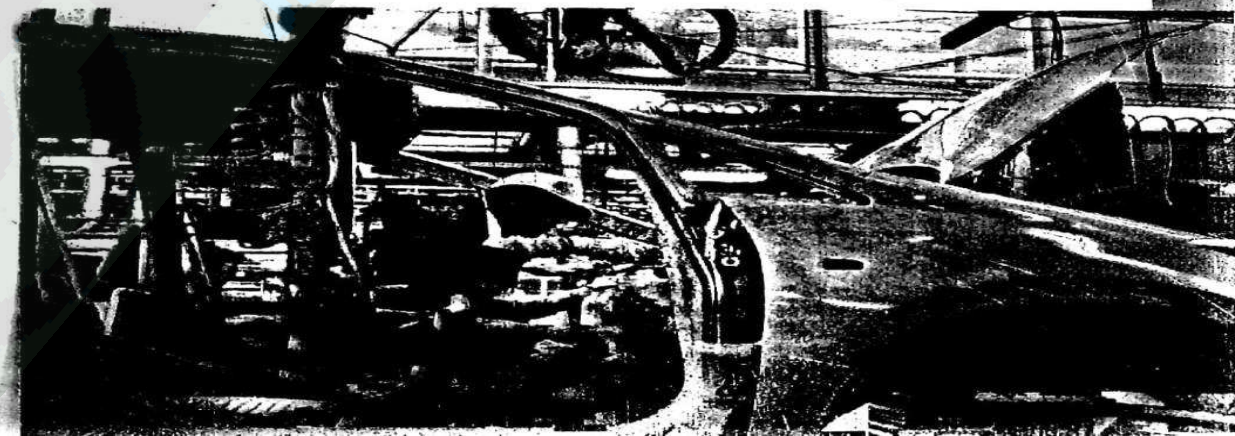
Toyota stands head and shoulders above fierce competition because it has been so skillful at combining quality with efficiency. One key to Toyota's success is its vaunted Toyota Production System, which is based on lean production—eliminating waste while optimizing value. Toyota has based its business processes and information systems on the principles of just-in-time delivery, quality, and continuous improvement.

By organizing its business processes and information systems around these principles, Toyota delivers value to the customer at a competitive price. As Ludo Vandervelden, vice president of Finance and Accounting, Information Systems, and Vehicle Logistics for Toyota Motor Europe points out, "you can achieve cost reductions and, at the same time, make your customers happy through implementation of smarter business processes."

Toyota Motor Europe and other Toyota divisions around the world use information systems to support these business processes. Vehicle production is based on actual customer orders rather than "best guesses" of what to stock in dealer showrooms, so the company only builds cars that customers want, when they want them, without additional delays or quality problems.

Toyota Motor Europe uses a vehicle orders management system based on Oracle E-Business Suite software to reduce the time it takes between placing a customer order and delivering the vehicle to the customer. The software integrates easily with the company's existing systems and also with those of Toyota's independent dealerships and national marketing and sales companies, which run their own separate information systems based on a variety of technologies.

This system encompasses several business processes. It starts with the customer selecting a car and various options, such as tinted windows or a navigation system. The dealer uses the system to configure a car with all of the selected options in front of the customer and then locates the best available car and options in the Toyota supply chain, including vehicles scheduled for production in the future. The dealer then uses the system to place the order through national distributors, who consolidate the order with those of their other retailers and place an order through Toyota Motors Europe. Toyota Motor Europe consolidates orders from the national distributors and places an order with Toyota's factories. Each car is then shipped and invoiced from the factory to headquarters to national distributors to retailers, triggering all related accounting processes at each step. National distributors can use the system to monitor their orders and those of different dealers and even "swap" cars with various retailers.



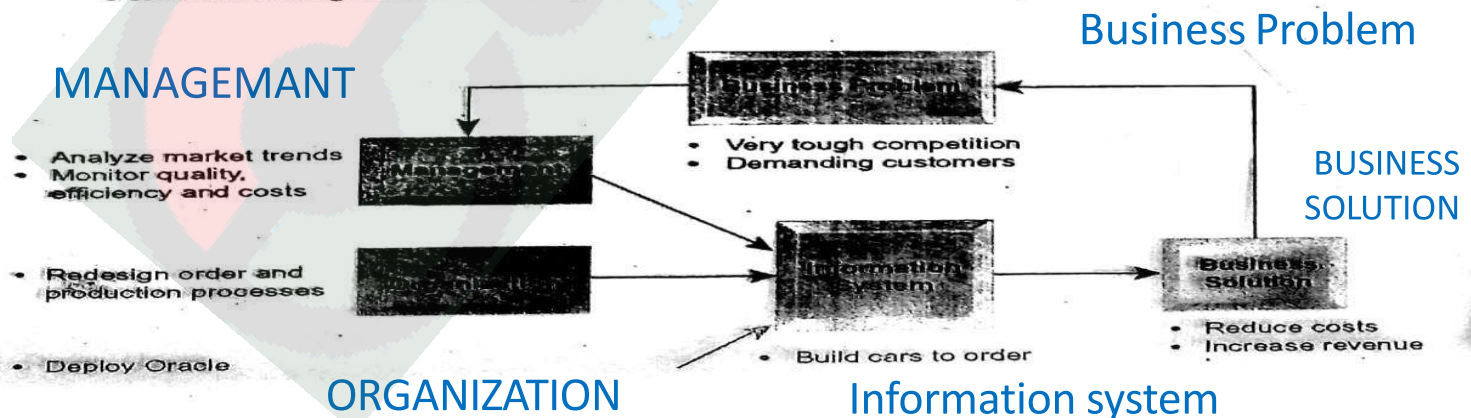
The vehicle order management system has helped Toyota reduce production time and the cost of maintaining materials and finished cars in inventory, while increasing customer service and satisfaction. According to Vandervelden, "with improved information transparency, we would be able to better readjust...our allocation of available product to markets that would be in high demand...and to reduce stock."

Sources: Katheryn Potterf, "Ready to Roll," *Profit Magazine*, May 26; Ian Rowley, "No Traffic Ahead for Toyota," *Business Week*, February 6, 2006; and "Triumphs & Trip-Ups in 2004," *Baseline Magazine*, December 20, 2004.

Toyota has flourished in a highly competitive environment because it has created a set of finely tuned business processes and information systems that simultaneously promote agility, efficiency, and quality. It can respond instantly to customers and changes in the marketplace as events unfold, while working closely with suppliers and retailers. The experience of Toyota and other companies described in this text will help you learn how to make your own business more competitive, efficient, and profitable.

The chapter-opening diagram highlights important points raised by this case and this chapter. As part of its ongoing effort to monitor quality, efficiency and costs, Toyota management saw there was an opportunity to use information systems to improve business performance. Technology alone would not have provided a solution. Toyota had to carefully revise its business processes to support a build-to-order production model that based vehicle production on actual customer orders rather than "best guesses" of customer demand. Once that was accomplished, Oracle E-Business software was useful for coordinating the flow of information among disparate internal production, ordering, and invoicing systems within the company and with systems of retailers and suppliers.

By helping Toyota build only the cars customers have ordered, its vehicle order management system reduces inventory costs, because the company and its dealers do not have to pay for making and storing vehicles customers did not want. The system also increases customer satisfaction by making it easier for customers to buy exactly the model, make, and option they desire. Information provided by the system helps management monitor trends and forecast demand and production requirements more accurately.



MIS: A framework

❑ Importance of MIS?

❑ MIS a Concept:

- Management
- Information
- System

Management-Managerial functions-

- **Planning**:-where ? What? When? How? Why?
- **Organizing**:- Divide the entire job into manageable task and assigned and delegating authority to complete the task
- **Staffing**:- Right person for the right job
- **Directing**:- Through communication, Motivation, and leadership
- **Controlling**:-Fix standards, measure performances, find deviation and take corrective actions

M.I.S. (Mgmt Infⁿ System)

- Meaning of M, I & S
- Defⁿ of MIS
- Is MIS new ??
- Importance of MIS
- Functions of MIS
- Role of MIS
- Concepts of MIS
- Appⁿ of MIS.
- Decision Making
- MIS is considered a combinations of two disciplines namely mgmt & Comp. Sc.

Mgmt :- Mgmt is the art of getting things done through & with the people. Mgr has to perform diff fns in a systematic way -

• Planning :- Process of foreseeing the future in advance. It bridges the gap b/w where we are & where we want to be.

• Organising :- orgⁿ is a process of Identifying^② the entire Job, dividing Job into no of tasks, allocating sub tasks to person / grp & delegating the authority to them so that Job is carried out as planned.

• Staffing :- Right person for right Job. Select a suitable person for the job & train them to accomplish their task.

• Directing :- Without directing any goal can't be achieved. Directing includes -

- Commⁿ
- Motivation
- Leadership.

• Controlling :- Controlling & planning are the two sides of a coin. Controlling ensures that activities are being performed as per plans.

Controlling is a process involves -

- (a) Fixing standards for measuring the performance
- (b) Measurement of actual performance
- (c) Compare actual with standard & find deviation.
- (d) Taking corrective action.

→ Infⁿ :- Infⁿ is a valuable resource for mgmt to run a business. Infⁿ now a days treated as an asset for an orgⁿ, that's why they want to store it & use it for further use. ④

- It is data which is processed & is presented in a form which assist Decⁿ mke.

- Infⁿ is required for every level of mgr to take the decⁿ & infⁿ can b viewed by diff people in diff ways.

→ System :- It's a set of interdependent & interrelated elements which are joined together to achieve a common objective.

Defⁿs of MIS :- MIS is also known as Infⁿ sys, or comp based sys -

① MIS is defined as a sys which provides infⁿ support for decⁿ making in the orgⁿ.

② MIS is a sys consist of people, machine procedures, Data Base & Data models as its elements. The sys gathers data for external and internal resources of an orgⁿ, process it & supplies mgmt Infⁿ to assist mgrs in the process of D.M.

③ MIS is defined as comp. based Infⁿ sys.

→ MIS is not a single sys. but it is an integrated sys. MIS is neither a science and nor an art but it is combination of both.

* Is MIS new ?? :-

(5)

Answer is ____ . MIS has been in existence since business start.

But now a days MIS is more effective because of combination of comp se.

* Importance of MIS :- We know D.M. is essential for a mgr for that he wants to know the valuable infⁿ on time to make rational decⁿ.

So every orgⁿ in order to survive & grow must have a properly planned, analysed, designed & maintained MIS, so that it provides timely, reliable & useful infⁿ to enable the mgr to take speedy & rational decⁿ.

→ MIS grows according to growth of I.T.

→ MIS is necessity of all the orgⁿ because of

(a) We know now a days there is no restriction on business areas. It's platform is global & mkt has no regional or national boundaries.

(b) Another reason of importance is the trend of virtual orgⁿ where there is no physical structure & we are able to service through internet appⁿ & tool.

Why Inf Sys ??

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All firms today large & small, local & global use I.S. to achieve imp business objective s.a -

- Operational efficiency
- Customer & Supplier Intimacy
- Better decⁿ making
- New Product & Services.

How to use I.S. & Technology to help us firm solve problem & overcome challenges.

I.S. is require for any decⁿ in ur Company.
If ur career is in -

* Finance or Acctg - Require I.S to -

- Summarize transactions
- Organize data
- Perform financial analysis.

* Human Resource - Require I.S to -

- Communicate & emp
- maintain emp record
- Coordinate work activities

* Manufacturing & Prodⁿ or operation - Require I.S to

- Planning
- Forecasting
- monitoring prodⁿ & services

* Sales & Mktg - Require I.S to

- Branding
- Promotions
- Processing order
- Providing customer Service.

Perspective of I.S. :-

MIS/10-1/06

I.T. Consists of all HW & SW that a firm needs to use in order to achieve its business objectives. I.S. is more complex & can be understood by looking at them from both a technology & business perspective.

What is an I.S. ? →

I.S. can be defined technically a set of interrelated components that collect, process, store & distribute Infⁿ to support D.Mktg. & Control in an orgⁿ. In addition to supporting D.Mktg, Control & coordination I.S. may also help mngs & workers analyze Problem, visualize complex subj & create new Products.

I.S. contains infⁿ abt significant people, place & things within the orgⁿ or in the envt surrounding it.

Infⁿ mean the processed data or meaningful data. & data, in contrast, is streams of raw facts.

An I.S. produces Infⁿ by these activities -

Input :- Captures or collects raw data from within the orgⁿ or from its external envt

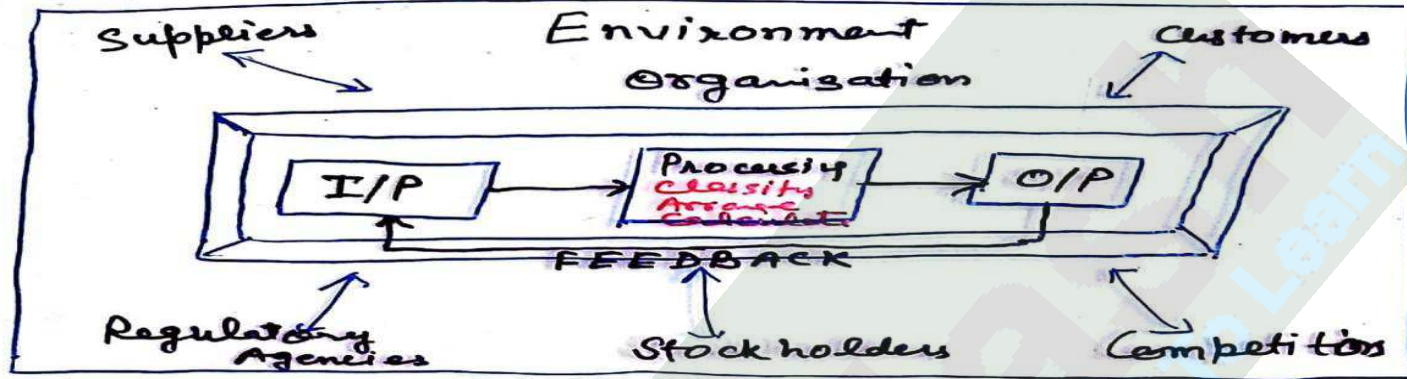
Processing - it Converts this raw input into a meaningful form

Output : It transfers the Processed infⁿ to the people who will use it or the activity for which it will be used

Feedback :- which is O/P that is returned to appropriate member of orgⁿ to help them evaluate or correct the I/P stage.

Ag: Function of an I.S. \Rightarrow

M



Dimensions of I.S. :- MIS deals 2 behavioral issues as well as technical issue surrounding the development, use & impact of I.S. used by mngts & emps in the firm.

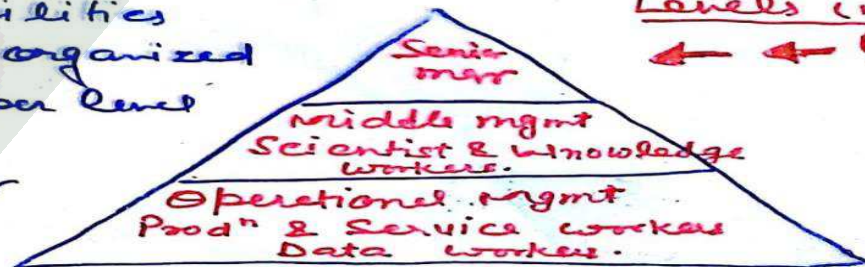
There are three dimensions of I.S. —

- Orgⁿ
- Mgmt
- Infⁿ Tech.

Orgⁿ :- I.S. is an integral part of Orgⁿ. The key elements of an Orgⁿ are its people, str., business processes, politics & culture.

Orgⁿ have a str. that is composed of diff levels & specialities.

Authority & responsibilities in a business firm is organized as a hierarchy. The upper level of hierarchy consist of managerial, professional or technical emps whereas lower level consist of operational personnel



Levels in a Firm

Senior mgmt makes long-range strategic decⁿ abt products & services & as well as ensure financial performance of the firm.

Middle mgmt carries out the programs & plans of senior mgmt.

Operational mgmt is responsible for monitoring the daily activities of the business.

Knowledge workers s.a. engineers, scientist or architects design products or services & create new knowledge for the firm.

Data workers s.a. secretaries or clerks, assist with paper work at all levels of the firm.

Prodⁿ or Service workers actually produce the product & deliver the service.

Experts & employed & trained for diff Business fns. The major business fns & —

- * Sales & Mktng
- * Manufacturing & Prodⁿ
- * Finance & Acntng
- * Human Resource.

Every Orgⁿ has its own Business Process & culture.

Mgmt → Mgmt's job is —

- make decⁿ
- Formulate plan to solve orgⁿ problems
- set orgⁿ strategy
- Allocate human & financial resources
- Leadership.

MIS/10-1/03
Mgns is also responsible for creative work driven by new knowledge & intⁿ. I.T helps mgns to design & deliver new products & services & redirecting & redesigning their orgⁿ.

Technology :- Technology play a vital role in an orgⁿ & is one of the many tools mgns use to cope change.

Comp H/w → diff size & shapes, various I/P & O/P devices
various storage dev., telecommⁿ devices---

Comp SW - diff SW that can control & coordinate
2 diff H/w.

Data Mgmt Tech^y :- How data sud b mged on Physical storage.

N/W & TeleCommⁿ Tech :- How the comps can be connected

- How the data will b transferred from one pt to another.
- How the data, voice, sound & video can be shared
- How the data, & resources can be shared.

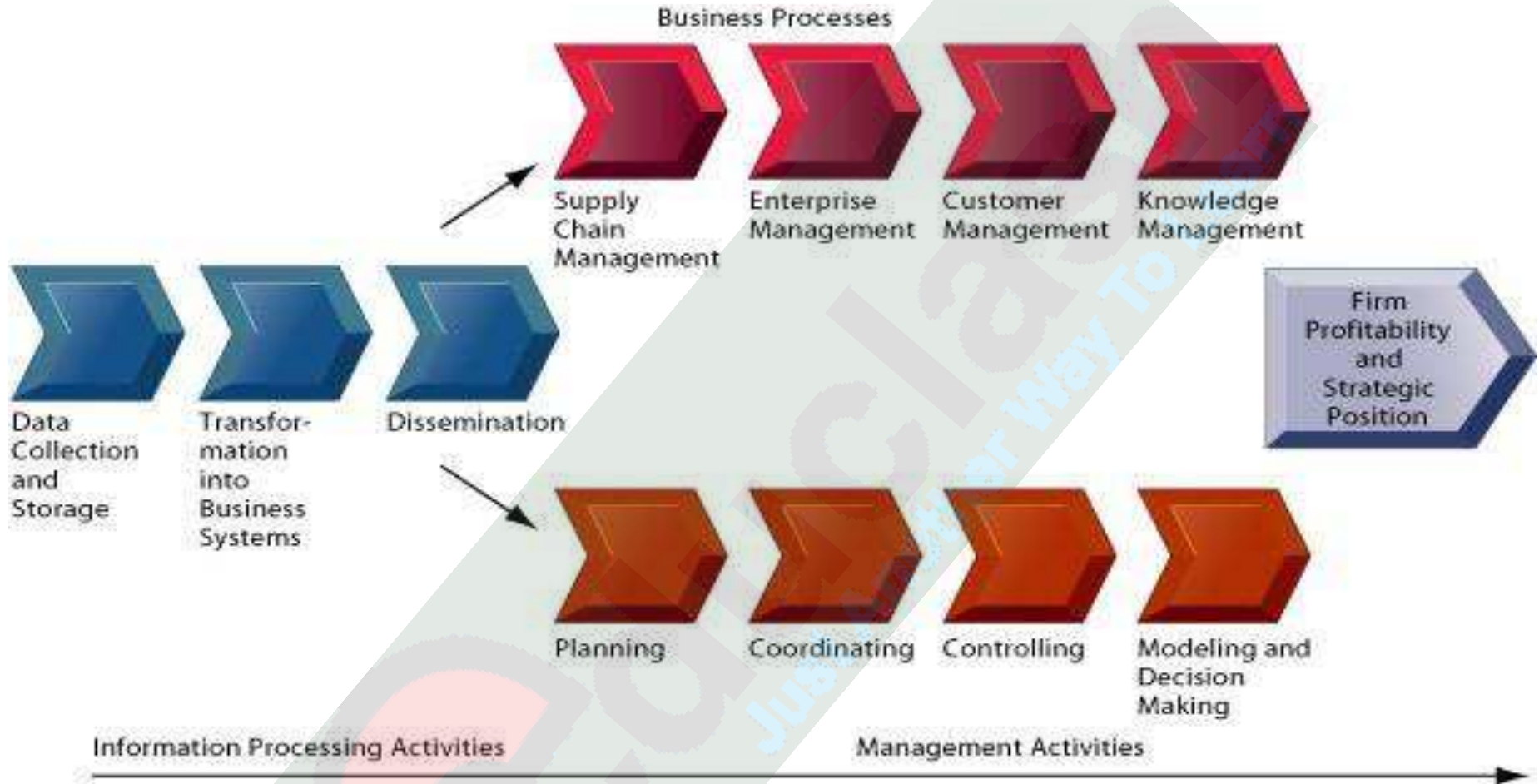
Internet :-

Intranet :- within the orgⁿ.

extranets :- Private intranet extended to authorized users outside the orgⁿ.

Firms use such n/w to coordinate their activities & other firm for making purchases, collaborating on design & other interorgⁿ work.

Business Information Value Chain

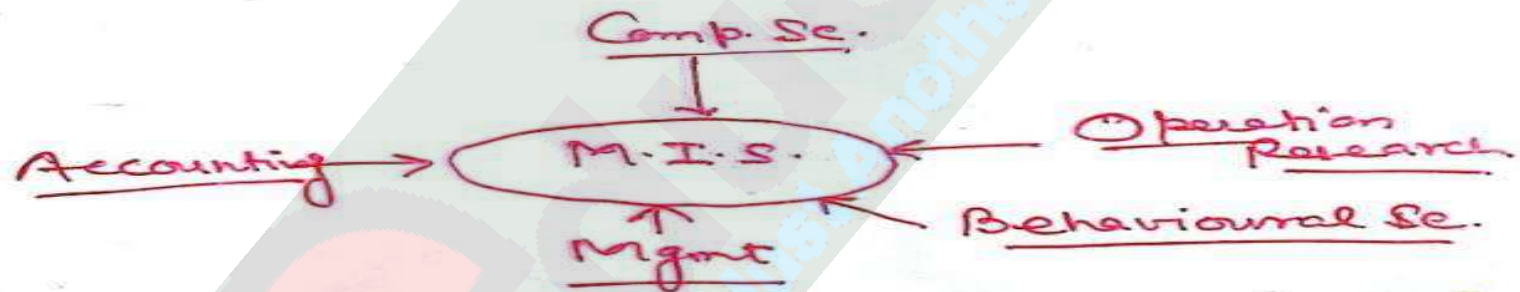


from a business perspective, info system is part of series of value-adding activities for acquiring, transforming & distributing info that mngers can use to improve decn making, enhance orgnl performance & ultimately increase firm profitability.

Nature and Scope of MIS

Concepts of MIS :- Concept of MIS in today's world is, a sys which handles the D.B. providing computing facilities to the end user & gives a variety of tools for Decⁿ making to the user of sys.

MIS gives intⁿ to diff level of mgr through data analysis, while analysis it relies on many academic disciplines — like — principal of concept of mgmt Science, Mgmt Accounting, O.R, Orgⁿ Behaviour, Comp Sc. etc.



* These academic disciplines are used in design the MIS.

- MIS also use Commⁿ Theory in its design.
- MIS also use sys theory in Design where it can be open sys or closed sys

MIS characteristic

MIS has following characteristics-

- ❖ System Approach
- ❖ Management oriented
- ❖ Need Based

Role of MIS :- Role of MIS is just like ⑦ the heart in our body. and infⁿ is just like the blood.

Main fn of heart is to supply the pure blood to all elements of body including brain. Heart works faster to supply more blood to body as & when required. It also control & regulate incoming impure blood, process it & send it to destination in quantity needed.

Same is true with MIS

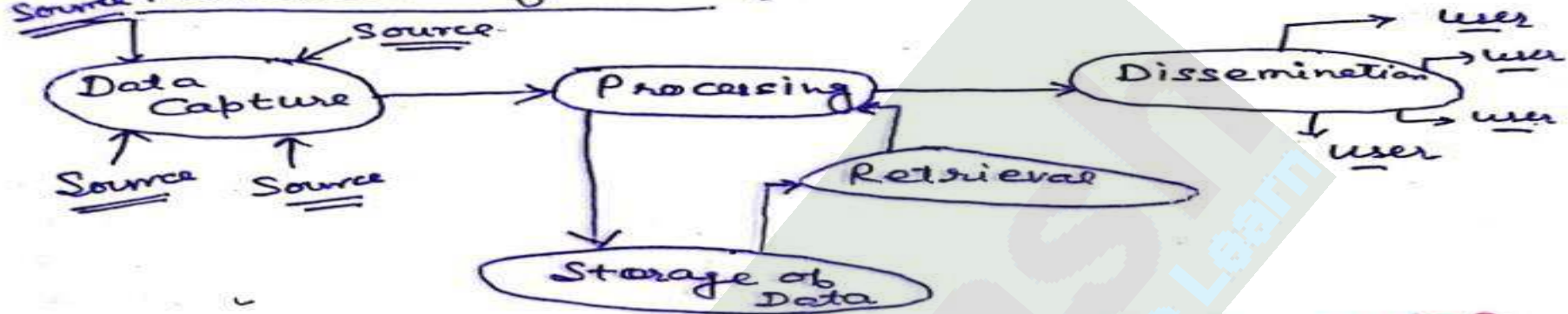
MIS collects all infⁿ from diff sources, processes it, purifies it & send it to the required destination.

- MIS helps lower mgmt (clerk personnel) in transaction processing & answer their queries, for that MIS extract the stored infⁿ & brought up that infⁿ required by low mgmt.
- MIS helps middle mgmt by providing operational data for planning, scheduling & controlling & short term planning.
- MIS helps Top mgmt to set goal, objective strategies & long range planning.

Impact of MIS

- MIS creates an impact on organization's function, performance and productivity.
- With a good support, the management of marketing, finance, production and personnel become more efficient.
- The tracking and monitoring of the functional targets becomes easy.
- The functional managers are informed about the progress, achievements and shortfalls in the probable trends in the various aspects of business.
- The manager's attention is brought to a situation which is exceptional in nature, inducing him to take an action or a decision in the matter.
- The information is available in such a form that it can be used straight away or by blending analysis, saving the

Source Functions of MIS :-



Main objective of MIS is to obtain mgmt Infⁿ to be used by mgr. in D.M. MIS must perform following fns to meet its objective.

- Data Capturing:- MIS capture data for diff internal & external sources of orgⁿ.
- Processing of Data:- The captured data is processed to convert it into the required M.I. by calculating, comparing, sorting & summarizing. These activities organise, analyse & manipulate data using various statistical, mathematical operation research and or other business model.
- Storage of Infⁿ:- MIS stores processed & unprocessed data for future use. If any infⁿ is not immediate required, it is saved as an orgⁿ record for future use as an asset.
- Retrieval of Infⁿ:- MIS retrieves infⁿ from its stores whenever required by various user.
- Dissemination of M.I.:- M.I. which is finished product of MIS, is disseminated to the user in orgⁿ. It can be periodic through report or on line through terminals.

Appⁿ of M.I.S. :-

Manufacturing Sector

Mktng	Prod ⁿ	Finance	Expenses
→ Orders	→ Planned Prod ⁿ	→ Current assets	→ Revenue exp ^s
→ Sales	→ Actual Prod ⁿ	→ Current liabilities	→ Capital exp ^s
→ Cost of goods sold	→ Cost of Prod ⁿ	→ Current ratio	→ Payment to sup
→ Finished good inventory	→ Raw material inventory	→ Account receivable to turn over	→ Mktng exp ^s
→ Receivables	→ Payable	→ Inventory turnover	→ travelling exp ^s
• Due	• Due	→ Net Sales	→ Miscellaneous exp ^s
• Overdue	• Overdue		

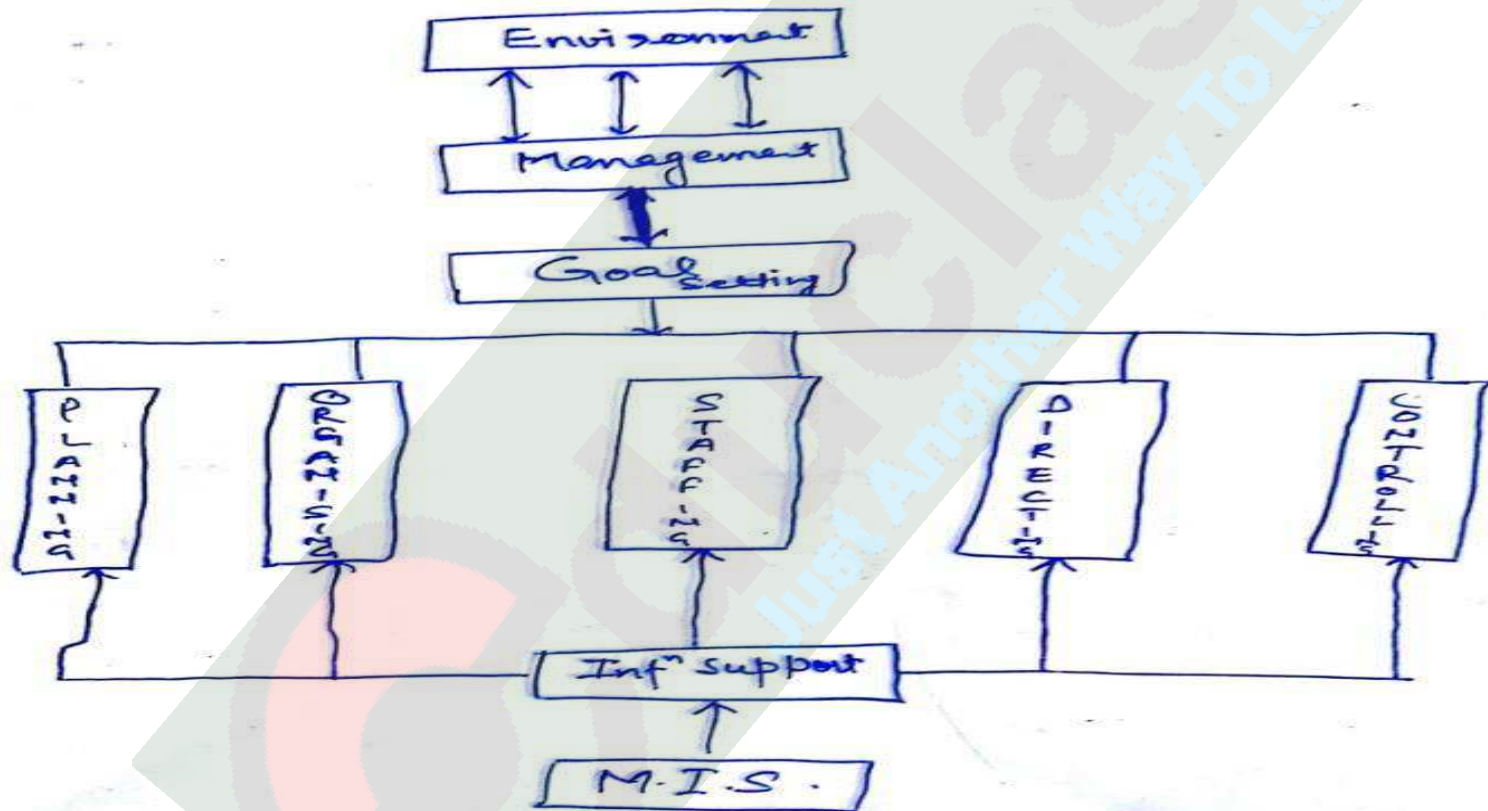
Service Sector :-

- Air lines
- Hospitals
- Hotels
- University, Colleges etc

MIS: Support To The Management

Steps in management	Decision
Planning	A selection from various alternatives- strategies, resources, methods, etc.
Organization	A selection of a combination out of several combinations of the goals, people, resources, method, and authority.
Staffing	Providing a proper manpower complement.
Directing	Choosing a method from the various methods of directing the efforts in the organization.
Coordinating	Choice of the tools and the techniques for coordinating the efforts for optimum results.
Controlling	A selection of the exceptional conditions and the decision guidelines.

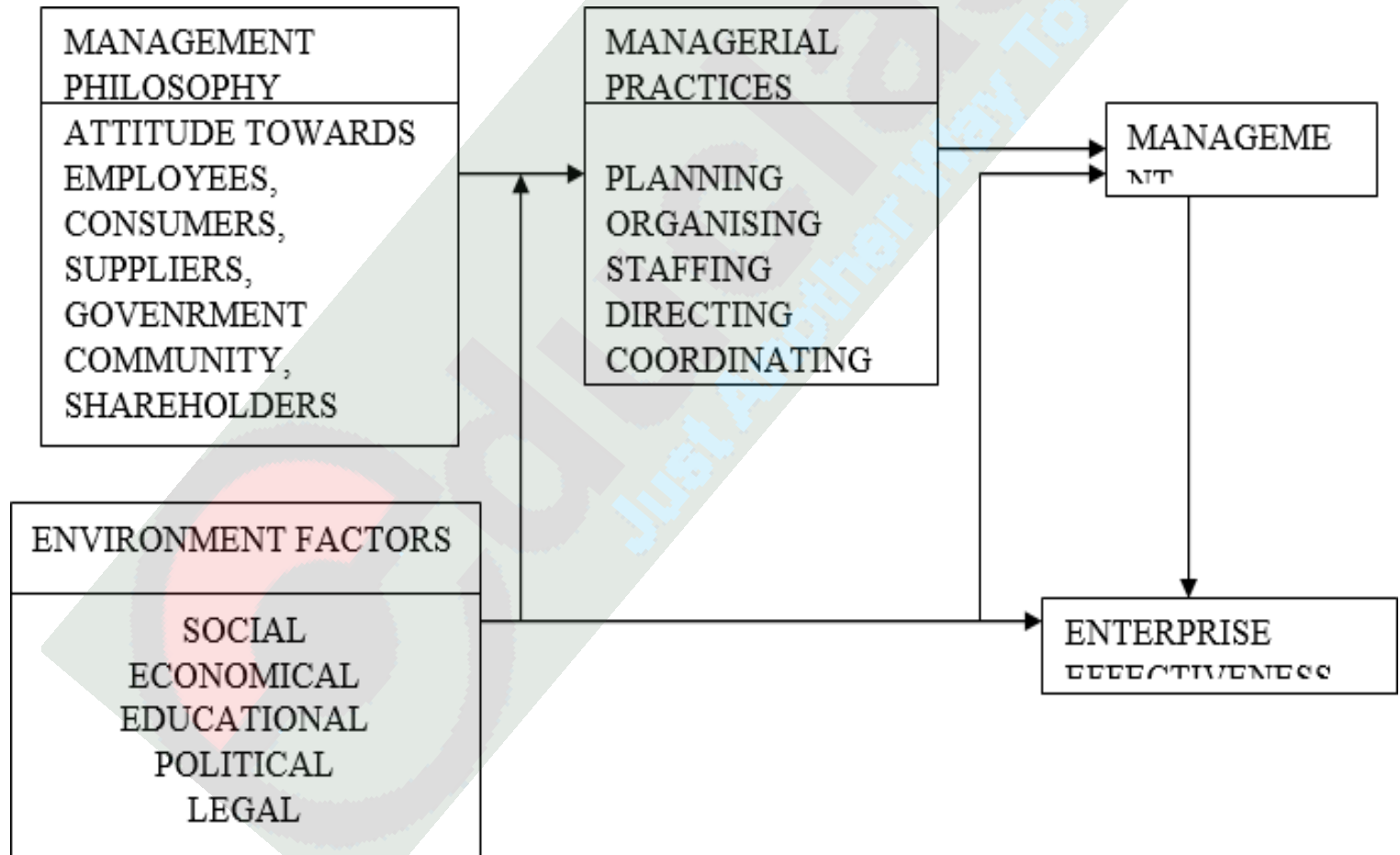
MIS: Support To The Management



MIS support to mgmt Process

Management Effectiveness and MIS

Negandhi Estafen has givn this model



The process of Management begins with set of **Goals, Objective and Target**

Long
Term
Aims

Table 1.2

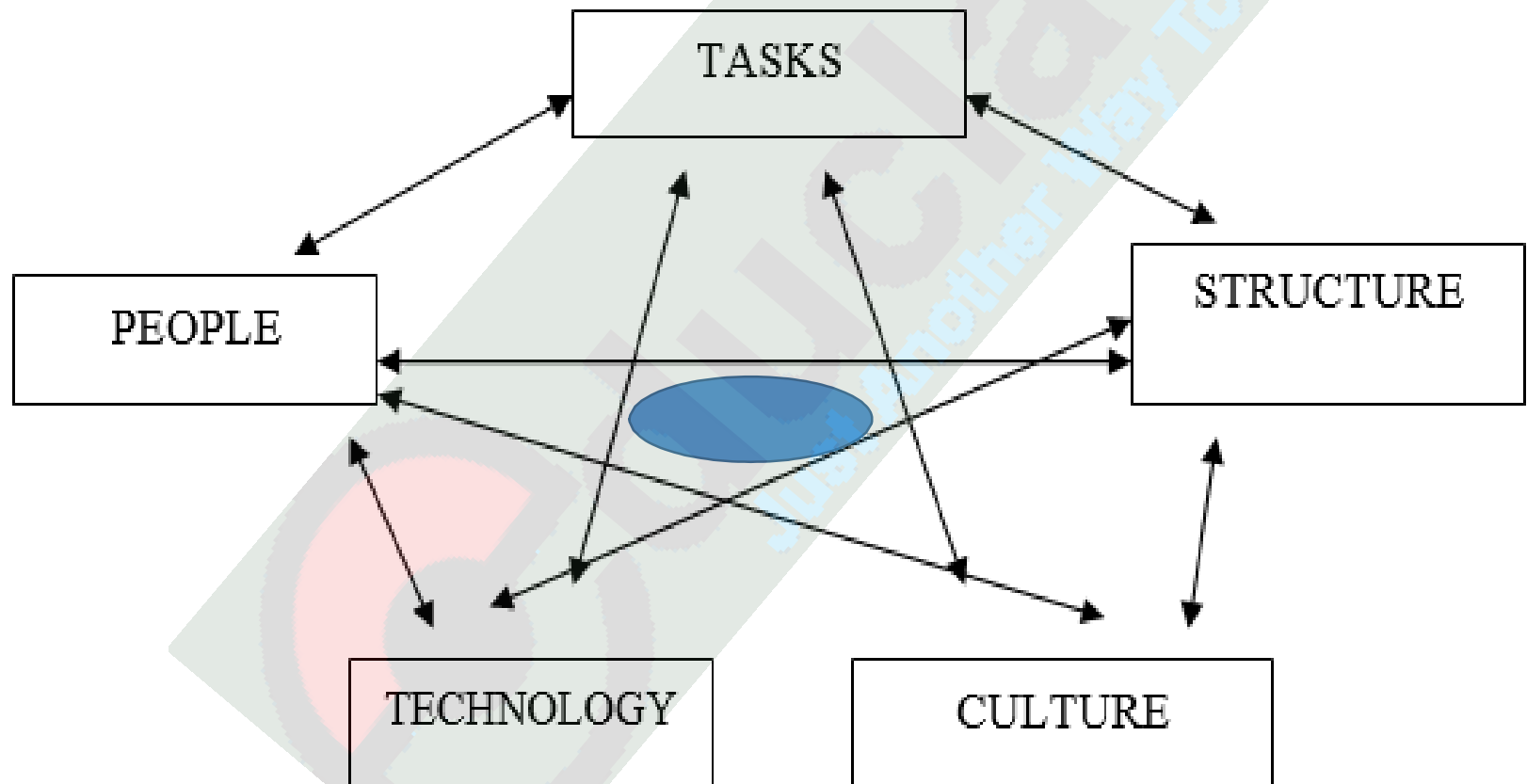
	<i>Business organisation</i>	<i>Hospital</i>	<i>State transport organisation</i>
GOALS	Be a leader in the household consumer goods industry, with modern amenities.	Be a hospital providing total service to the patients.	Connect all villages of population 5000 and above by S.T. service.
OBJECTIVES	Provide complete range in Food Processing & Entertainment products.	Establish 300-bed hospital.	Manage state transport expense at the rate of Rs 5 per kilometre travel.
TARGETS	20 per cent growth per annum in turnover.	Achieve Rs 800 per bed per day earnings.	Achieve 90 per cent average seat occupancy every day.

Short
Term
Aims

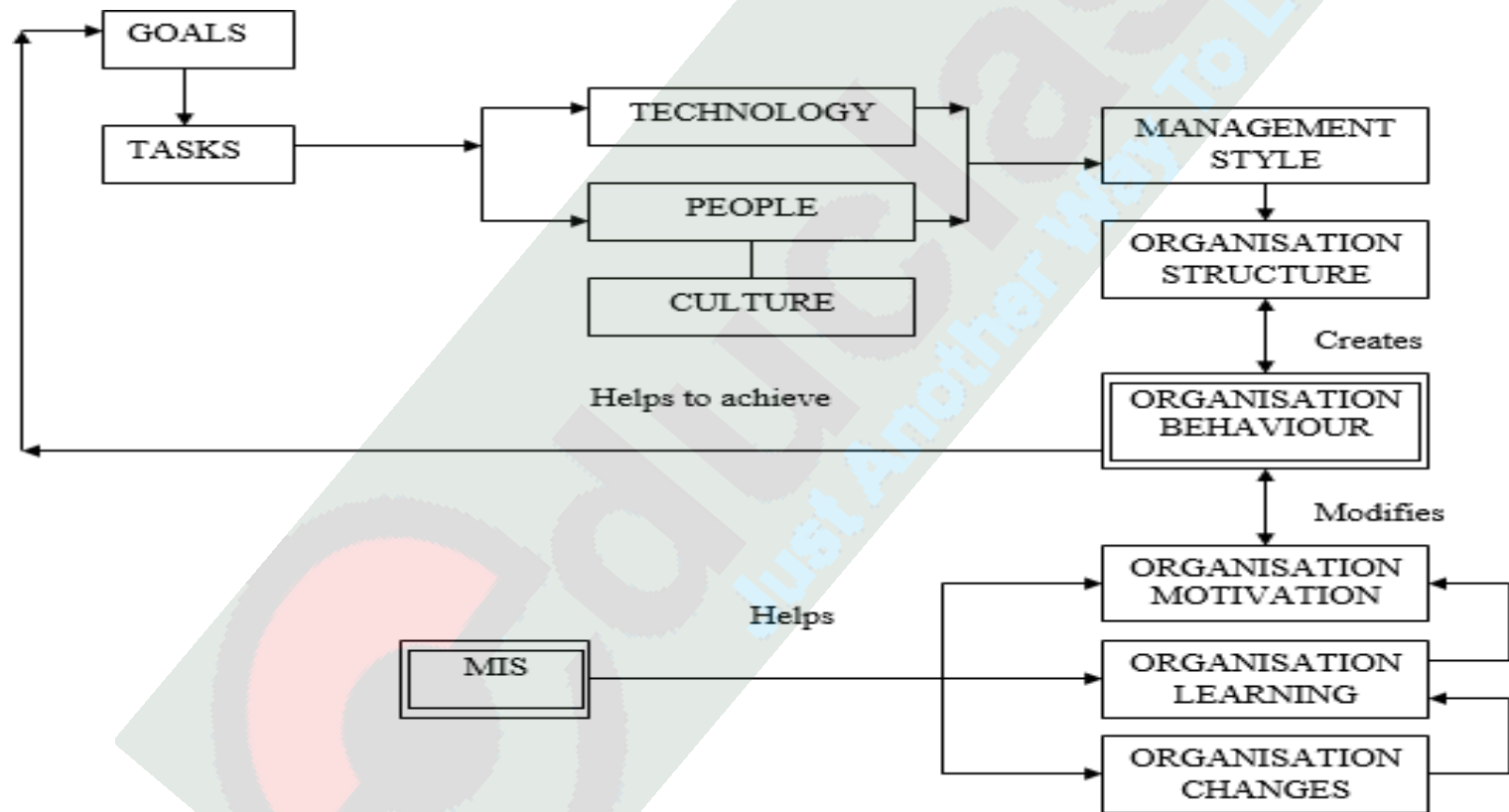
Physical
Achievements

Organization as a System

H. J. Leavitt model



MIS: Organization Effectiveness



Organizational Behavior & Management Information System

MIS for a Digital Firm

- E business Enterprise has become completely digitalized all its operations and hence is now called as a “Digital firm”
- Digital firms are more flexible, profitable , efficient and competitive than traditional firms.
- SCM, CRM , CMS, ERP, KMS are the main systems which drive the functions of digital firm.
- In digital firm, there is an automation of data or event capturing , assessing, analyzing and decision making.
- In this system, in real time mode, decision maker's responses have to be fast and correct
- MIS helps in all activities of a digital firm.
- MIS in a digital firm needs to shift from JIT information to JIT actionable information which is the result of the



edudclash

Just Another Way To Learn