

WEEK 13

Work Design

And

Technology



Technology in Workplace

- The common theme among new technologies in the workplace is that they substitute machinery for human labour in transforming inputs into outputs
- For instance, the introduction of textile factories introduced mechanical looms that could produce cloth more quickly and cheaply than the looms which operated manually
- The other examples can be:
 - ✓ ATM (Automated Teller Machines),
 - ✓ CCTV (Circuit Camera Television Videos),
 - ✓ Computerized payment systems (in retail stores, in petrol stations)
 - ✓ Online banking
 - ✓ Hand phone payment scheme
 - ✓ Automated packaging system (without involving factory workers)

Continuous Improvement Process

- Quality management can be described as continuous improvement of all organization processes which search for excellent performances that will keep them ahead of their competitors
- The continuing improvement process involved in all functional departments
- However, the continuing improvement process might increase employees stress from the work climate since the employees can no longer be complacent with the status quo
- The stress might eventually increase employees anxiety and high turnover rate



Process Reengineering

- Process reengineering comes from the process of taking an electronic product and designing a better version
- Michael Hammer applied the term of reengineering in the organization which uses computers simply to automate outdated processes, rather than finding fundamentally better ways of doing business
- Process reengineering means that management should start with a clean sheet of paper - rethinking and redesigning the processes which create value and do work, ridding itself of operations that have become antiquated

The Key Elements of Process Reengineering

- There are three key elements of process reengineering:
 - **Distinctive competencies** - What it is that an organization does better than its competitors? The examples can be better store locations, a more efficient distribution system, high-quality products, more knowledgeable sales personnel, etc
 - **Core process** - The process which has to be simplified and made convenient to the customers. For instance, ATM payment systems, online banking, Wi-Fi accesses, videoconferencing, etc
 - **Cross functional team** - This refers to the use of self-managed team rather than focusing on the functional aspect. It means the amount of management must be minimized

Implications for Employees

- The result has been that a lot of people have lost their jobs, staff support, especially middle managers, have been particularly vulnerable to process reengineering efforts
- The new jobs typically require a wider range of skills, including more interaction with customers and suppliers, greater challenge, increased responsibilities, and higher pay
- The employees might suffer from the uncertainty and anxiety associated with taking on new tasks and having to discard long-established work practices and formal social networks

Mass Customization and Production

- **Mass customization** - Production processes that are flexible enough to create products and services that are individually tailored to individual customers
- **Mass production** - Using division of labour, standardization and automated processes to manufacture products in large quantities
- The examples of organizations which practice mass production are McDonald's, Ford, Proton, etc
- The implication of mass production leads to economies of large scale. The automated processes achieve large quantities and lead to reduced cost
- Examples of mass customization like Levi Strauss (customers can design the dress and jeans they like), Farm companies (the farmers can select the machine models they need online)

Mass Customization and Production

- Mass customization offers advantages to both customers and manufacturers. Customers don't have to compromise, they can have the products they want, tailored to their individual needs
- Mass customization results in production efficiency and little work-in-progress and finished-goods inventories
- The employees must be retrained for fitting into the process of mass customization
- Mass customization requires the work of the team rather than group cooperation

OB in an E-World

- **E-commerce** - The sales side of the electronic business. People can buy and sell their goods over the internet
- **E-business** - The full breadth of activities included in a successful internet-based enterprise
- It includes the strategy like how to improve the communication skills between people, suppliers and customers; and collaboration with partners to electronically coordinate design and production
- **E-organization** - A profit or nonprofit organization that uses the internet and private network links to facilitate activities and communication. It can include organizations like government, hospitals, schools, museums, etc

OB in an E-World

- The three components of an e-organization:
 - Internet - A worldwide network of interconnected computers
 - Intranets - An organization's private internet
 - Extranets - Extended intranets accessible only to selected employees and authorized outsiders
- Low intranets and high internet linkages - small retailers, services firms
- High intranets and low internet linkages - the companies which deal with confidential information like military, police officials, etc
- Low intranets and high internet linkages - the companies which like to develop the business, which generally include small and medium enterprises
- High intranets and high internet linkages - these are the companies like e-Bay, Cisco Systems, Amazon. com, Wal-Mart, etc

Implication of E-organization

- **Motivation** - The acceleration technology might distract the attention of the employees and de-motivate them in the sense of culture changes
- **Cyber loafing** - The act of employees using their organization's internet access during formal work hours to surf non-job-related Websites and to send or read personal e-mail
- **Ethics** - Electronic surveillance of employees by employers is an issue that pits an organization's desires for control against an employee's right to privacy
- The control removes the employees' privacy but also reduces goofing off by the employees

Implication of E-organization

- **Decision making:** E-organizations are typically team-based communities. So, group decision-making model will offer greater relevance
- **Communication:** E-organizations are rewriting the rules of communication. They also redefine how activities such as meetings, negotiations, supervision, and 'water cooler' talk are conducted
- For instance, virtual meetings allow people in geographically dispersed locations to meet regularly. All the employees have to learn how to use the new technology

Conceptual Frameworks for Analyzing Work Tasks

- **Task Characteristics Theories** - Theories that seek to identify task characteristics in jobs, how these characteristics are combined to form different jobs, and their relationship to employee motivation, satisfaction and performance
- There are three most important task characteristics theories:
 - ✓ Requisite task attributes theory
 - ✓ The job characteristics model
 - ✓ Social information processing model

Requisite Task Attributes Theory

- Turner and Lawrence defined the task into six characteristics: they are **variety, autonomy, responsibility, knowledge and skills, required social interactions, optional social interaction**
- They found that the higher the job score with these characteristics, the more complex the job
- They found that the workers who are from rural background reported higher job satisfaction in high complexity jobs
- They also found that the workers from large communities will not be motivated by the jobs and show less interest in their jobs
- Task attribution theory is important because:
 - I. It demonstrates that employees do attach different attributes to different jobs
 - II. It provides a preliminary set of task attributes by which jobs could be assessed
 - III. They focused on employees' reactions to jobs

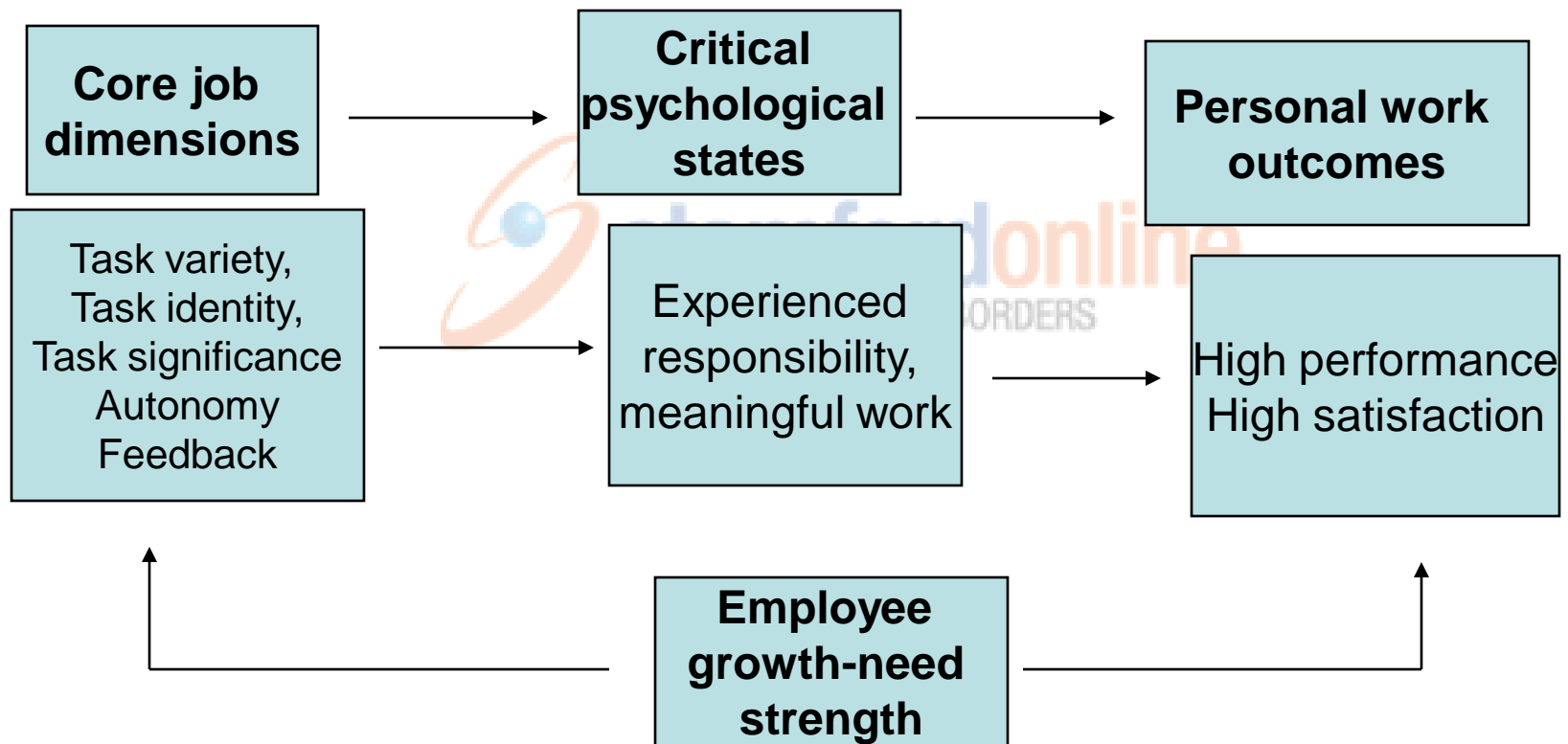
The Job Characteristics Model - Hackman and Oldham

- **Job Characteristics Model** - Identifies five job characteristics and their relationship to personal and work outcome
- **Skill variety** - The degree to which the job requires a variety of different activities so that the worker can use a number of different skills and talents (e.g. high - owner operator of a garage, low - spray worker)
- **Task identity** - The degree to which the job requires completion of a whole and identifiable piece of work (e.g. high - cabinet worker, low - furniture worker who only fixes the table leg)
- **Task significance** - The degree to which the job has a substantial impact on the lives or work of other people (e.g. high - nursing, low - office cleaner)

The Job Characteristics Model - Hackman And Oldham

- **Autonomy** - The degree to which the job provides substantial freedom and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out (e.g. high - salesperson develops the whole marketing plan, low - salesperson who just follows the plan)
- **Feedback** - The degree to which carrying out the work activities required by a job results in the individual obtaining direct and clear information about the effectiveness of his or her performance (e.g. high - electronics factory workers who assemble and test the radio, low - electronic workers who just assemble part of the radio)

The Job Characteristics Model - Hackman And Oldham



Social Information Processing Model (SIP)

- **Social Information Processing Model** - People respond to their jobs as they perceive them rather than to the objective of the job itself
- SIP argues that employees adopt attitudes and behaviours in response to the social cues provided by others with whom they contact
- The others - could be co-workers, supervisors, family members, customers, etc
- Therefore, the 'social' comments are very important to the workers, and the boss should spend more time to 'educate' about the job to the workers

Work Space Design - Size

- **Size** - Size is defined by the square feet per employee
- Historically, the most important determinants of space provided to employees were dependant on status
- For instance, in large companies like IBM, General Motors, seniors executive may have been assigned 800 square feet plus 300 square feet for private use, a unit manager 120, and supervisors only 80 square feet
- Size is less important in places where people can meet and teams can work together

Work Space Design - Arrangement

- **Arrangement** - Arrangement refers to the distance between people and facilities
- An employee work location, therefore, is likely to influence the information to which one is privy and one a certain grapevine network or not
- The office must normally be arranged with certain amount of furniture to convey the message of formality



Work Space Design - Privacy

- **Privacy** - is in the part of a function of the amount of space per person and the arrangement of that space
- Some organizations seek to decrease the privacy of the employees by removing physical barriers like high walls, closed offices, and doors
- Some big companies like IBM, Microsoft, Apple Computer continue to rely primarily on private offices for software programmers and code writers. These people need to cooperate with others at times, but theirs is essentially a lonely task that requires tremendous concentration

Work Space Design - Feng Shui

- **Feng Shui** - is an ancient Chinese system of arranging a person's surroundings so that they are in harmony and in balance with nature
- The Feng Shui philosophy:
Office location and layout -
 - ✓ Manager's office should be as far as possible from the entrance to the building. The further the entrance, the greater the power
 - ✓ There should be no one facing the door because this creates rivalry and general bad feeling among employees
 - ✓ A screen across a front door will block evil

Work Space Design - Feng Shui

- **Desk position -**

- ✓ A person must always be able to see the door. If there is no door, the desk needs to be placed so that a person can see the workplace entrance
- ✓ The desk should be placed far inside the room to provide as much view of the room as possible because what cannot be seen cannot be controlled
- ✓ Avoid placing a desk in direct line with the door. This makes a person vulnerable to noise and interruptions, and feel unprotected from unwelcome surprises

Work Space Design - Feng Shui

- **Water** - It is associated with prosperity and good chi
 - ✓ Fish tanks and aquariums are excellent sources for bringing success and prosperity into an office
 - ✓ The movement and flow of water in a fish tank symbolizes positive cash flow
 - ✓ The popularity of fountains outside office buildings is consistent with the view that the movement and splash of flowing water encourages good chi
- **Plants and flowers** - They seem to bring good luck and happiness
- **Reflections**
 - ✓ A mirror at the entrance of a building repels bad things
 - ✓ Mirror symbolizes double income

Work Redesign Options

- **Job rotation** - The periodic shifting of a worker from one task to another. It is also known as cross-training
- For instance, the factory workers being transferred from cutting department to melting department periodically
- The strength of job rotation:
 - ✓ Reduces boredom
 - ✓ Increases motivation
 - ✓ Flexibility of work scheduling
 - ✓ Adapting to changes
- The weakness of job rotation:
 - ✓ Training costs increase
 - ✓ Conflict of adjusting to work schedules

Work Redesign Options

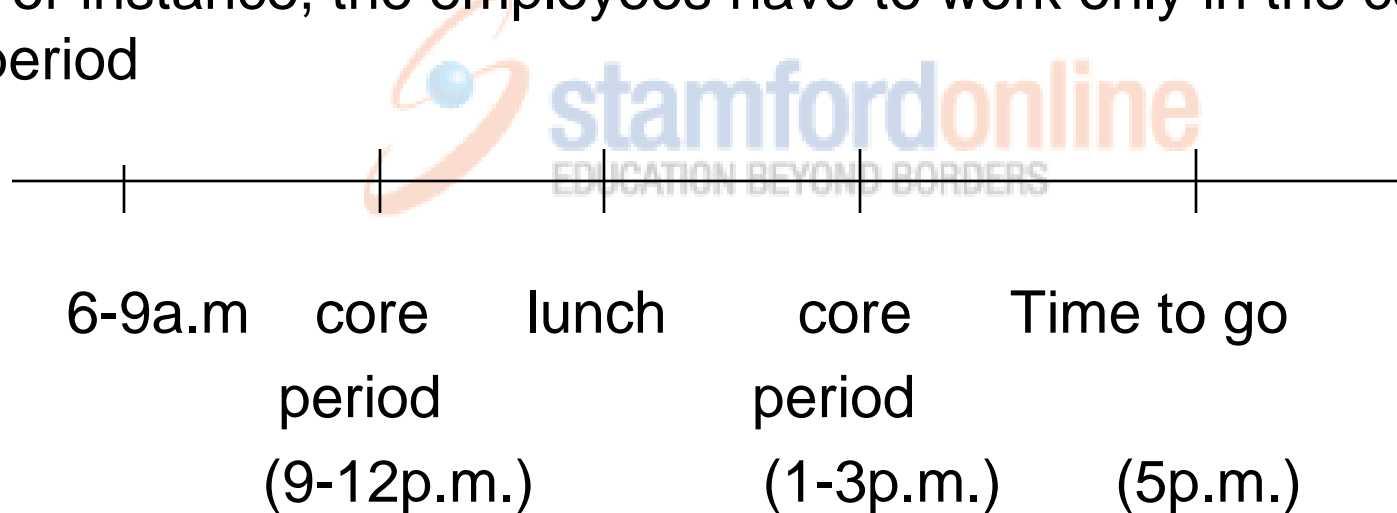
- **Job Enlargement** - The horizontal expansion of jobs
- For instance, a mail sorter's job could be enlarged to include physically delivering the mail to the various departments or running outgoing letters through the postage meter
- The strength of job enlargement:
 - ✓ Developing the skills of the employees
 - ✓ Motivation and career development
- The weakness of the job enlargement:
 - ✓ Stresses up the employees
 - ✓ Money is the motivator

Work Redesign Options

- **Job enrichment** - The vertical expansion of jobs. It increases the degree to which the worker controls the planning, execution, and evaluation of his or her work
- The advantages of job enrichment:
 - ✓ It allows the worker to do a complete job
 - ✓ It increases the employee's freedom and independence
 - ✓ It increases the responsibility of the worker
- The disadvantages of job enrichment:
 - ✓ Not every worker prefers job enrichment
 - ✓ It increases the burden of the employees

Work Schedule Options

- **Flextime** - Employees work during a common core time period each day but have discretion in forming their total workday from a flexible set of hours outside the core
- For instance, the employees have to work only in the core period



Work Schedule Options

- The main advantages of flextime:
 - ✓ Reduces absenteeism
 - ✓ Increases productivity
 - ✓ Reduces overtime expenses
 - ✓ Lessens conflict management
 - ✓ Reduces traffic congestion
- The disadvantages of flextime:
 - ✓ It is not applicable to all types of jobs like receptionists, clerks
 - ✓ It only depends on the project basis