# King Fahd University of Petroleum & Minerals

CEM 515 Construction Quality Assurances
Midterm exam

Name:_____ St NO._____

CHAPTER 3: PROJECT MANAGEMENT AND QUALITY

1. Many excellent organizations seek to define the _____ rather than determining _____. This frequently results in an isolation from the customer, with the ultimate consequence of leaving the deliverable on the doorstep for the customer. Such organizations do not keep close to their customers

2. CDPM uses the total quality management emphasis on _____, people involvement through teams, _____, and _____, and it stresses the project management methods for planning, controlling, and delivering successful deliverables

3. _____ is a management approach that focuses on producing deliverables that achieve total customer satisfaction.

4. In many of today's organizations, _____ and _____ are separated. This restrains the organization's ability to achieve *total customer satisfaction***.**

5. Projects include three kinds of planned, short-term activities:

- ✓ Those producing _____
- ✓ Those producing _____, and
- ✓ Those resulting _____

6. Name the following figures/graphs

Figure 3.1 Chain reaction.

Figure 3.3 Linking quality with project management.

Figure 3.2 Vision, mission/objective, strategy, tactics, and operations.
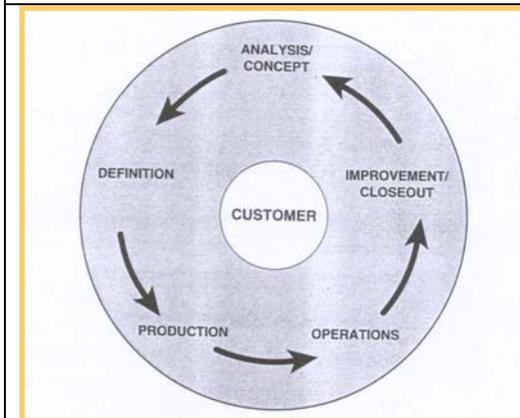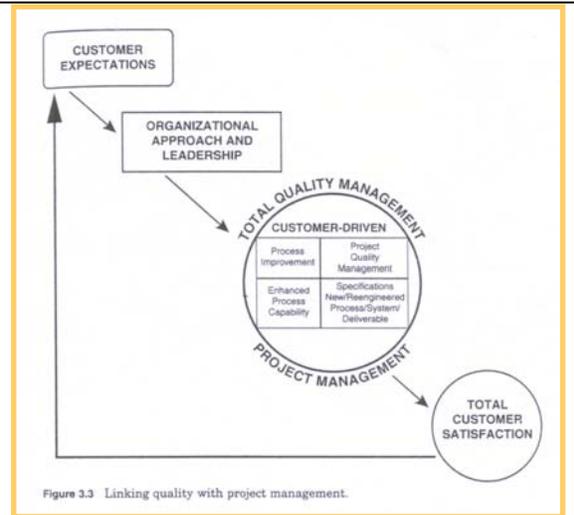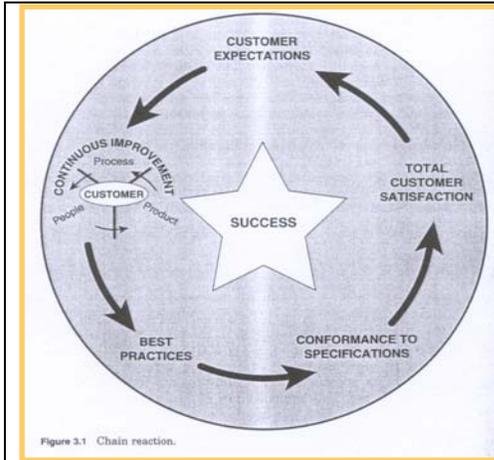
7. Customer-driven project management stresses:

– _____

– Right-sized and team-based organizations, and

– _____

8. The new millennium has introduced a new stage in the development of project management-we call it "_____”

9. Project management became necessary because traditional organizations structured around functional activities, such as *engineering*, *manufacturing*, *support*, *finance*, and human resources, could _____ projects.

10. According to project management standards, a successful project is one that is completed on _____ and within_____ and meets _____ *criteria*.

11. _____ means the customer or customer's voice is the primary focus.

*12.*_____ is any series of activities that has a specific end or objective.

13. _____ involves optimizing resources, that is, getting the most out of both technology and people.

14. The customer-driven project management life cycle includes:

> – Concept
> – _____
> – _____
> – _____
> – _____

15. The CDPM improvement methodology consists of the following eight steps:

- 1 Define quality issues.
- 2 _____.
- 3 Select improvement opportunities.
- 4 _____.
- 5 Take action.
- 6 _____
- 7 Implement the . improvement.
- 8 _____.

16. CDPM is a process that is wholly driven by the _____ at every turn and which places the customer in _____ from start to finish

CHAPTER 5:Leadership and Quality

The total quality management environment must include the entire organization and be shared by everyone in the organization.

- The creation of a VICTORY environment requires the following elements:

    – Vision and the leadership to make it happen
    – Involvement of everyone and everything
    – Continuous improvement system
    – Training and education
    – Ownership
    – Rewards and recognition
    – *Years* of support and commitment

The *mission* describes the basic corporate view of the role and function of the organization in satisfying customers' expectations today and in the future

Mission should be stated clearly in documents that every employee can use as the "anchor" for his or her performance

The development of a mission statement starts at the top

Values include the principles the organization believes and follows.
- Values are the collective concept of what is important and what is "right" about the organization.

Specifically leaders do the following:

- Leaders create synergy
- Leaders create vision
- Leaders give structure
- Leaders set the example
- Leaders grow other leaders
- Leaders establish and maintain organizational systems
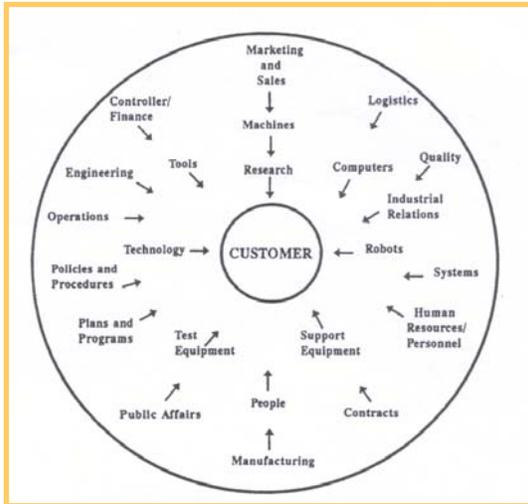
In a TQM environment, people are the most important resource

All the people in the organization must be empowered to perform their work with excellence.

- People must be encouraged to be creative and innovative within all areas of their work.

- The continuous improvement system applies all the fundamental aspects of the TQM definition.

Continuous Improvement

– **People are not the problem, people are the solution.**

– **Quantitative methods are the principal means to make decisions.**

– **An appropriate improvement methodology is used to improve all material services supplied to an organization**

Training and Education

- Specifically, the key skills that must be developed for a TQM environment include:
-
  - **Communication, especially listening;**
  - **Teamwork;**
  - **Conflict management;**
  - **Problem solving;**
  - **Consensus decision making;**
  - **Critical and systems thinking;**
  - **Understanding customer needs; and**
  - **Process improvement.**

Ownership comprises the ability to perform and improve work.

- *Empowerment is the process of enabling employees at all levels to exercise wide discretion in meeting customer needs, both within the outside the organization.*

- *Control is the process of setting boundaries on that discretion, through guidelines, so that employees are clear on the extent of empowerment.*

- **Rewards can be extrinsic, such as compensation, promotion, and benefits,**

- **Rewards can be intrinsic, such as feeling of accomplishment, improved self-esteem,, 1personal growth, or a sense of belonging**
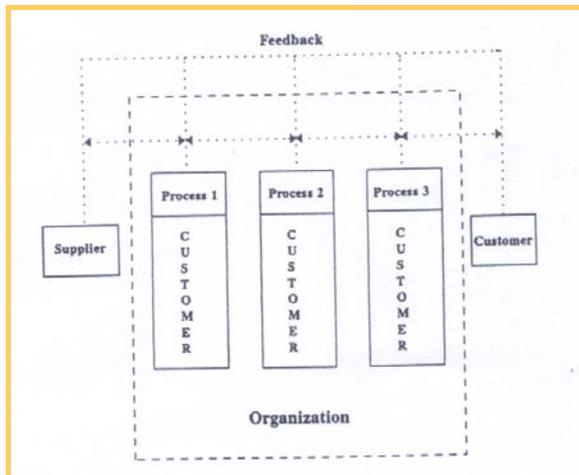
Elements that must be observed in order to achieve total customer satisfaction:

- Know your organization
- Know your product
- Know your competition
- Know your customers

Project management system involves the following major processes:

1. *Analysis*
2. *Planning*
3. *Implementation*
4. *Evaluation*

The CDPM framework in its most complex form includes the following essential teams:

- Customer and supplier strategy teams
- Customer and supplier project steering teams
- Customer-driven project lead teams
- Customer-driven teams
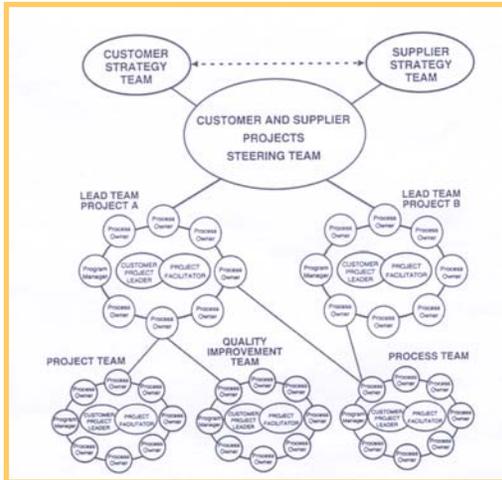
Chapter 6:
THE EIGHT STEP PROCESS

◆ The eight phases of the customer-driven project management improvement methodology are:

➢ Phase 1: Define the quality issue
➢ Phase 2: Understand and define the process
➢ Phase 3: Select improvement opportunities
➢ Phase 4: Analyze the improvement opportunities
➢ Phase 5: Take action
➢ Phase 6: Check results
➢ Phase 7: Implement the improvement
➢ Phase 8: Monitor results

Phase 1: Define the quality issue
❀ Input: draft mission statement from the customer and supplier project steering team.

❀ Process: the input is used in the process to
   ✓ Establish the project mission
   ✓ Form the customer-driven project lead team
   ✓ Define the project deliverable

❀ Output: the output of this process is a project mission statement with a specific project deliverable definition

Phase 4: Analyze the improvement   opportunities
❖ Input: the input is the selected improvement opportunities

❖ Process: the process involves

- ◆ Process analysis
- ◆ Cause-and-effect analysis
- ◆ Data statistical analysis

- ❖ Output: the output of this process is project(s) objectives

Phase 7: Implement the improvement
- ● Input: the input is the project deliverable or improvement.

- ● Process: the process in this phase involves
  – Planning and gaining approval
  – Instituting the project deliverable and/or improvement
  – Project operation and support.

- ● Output: the output of this process is a project deliverable that continually satisfies the customer

Phase 8: Monitor results for continuous   improvement
- ❑ Input: operational project deliverable or improvement

- ❑ Process: the process involves
  1. Evaluating project performances metrics
  2. Assessing the project processes
  3. Seeking continuous improvement of the project deliverable and project processes

- ❑ Output: the output of this process is a successful project.

Chapter 7
Complete the missing words (1 point each)

1) Customer-driven teams are the primary technique for performing customer-driven project management. Customer-driven teams are as follows:

Customer-driven _____. These are customer-driven teams whose purpose is to complete a specific project, program, or task.

Customer-driven _____. These customer-driven teams focus on improving a specific process.

Customer-driven _____. These customer-driven teams constantly perform and improve their particular process.

2) _____ is the involvement of each person in the organization in the work itself and in improvement of the work.

3) _____ are a group of people working together toward a common goal.

4) _____ is a technique where the individual team members work together to achieve a common goal.

5) _____ is a technique for exchanging information.

6) _____ is a communication technique for receiving and understanding information.

7)_____ is a technique to establish a focus on a specific outcome.

8) _____ is a tool for bringing a group together to work for a common goal.

9) _____ is a tool that encourages the collective thinking power of a group to create ideas.

10)_____ is a tool for providing information, gaining approval, or requesting action.

11)_____ is a disciplined approach for listening to the voice of the customer to get customer requirements that are converted into deliverable conditions.

12)_____ is a method of measuring your organization against those of recognized leaders.

13)_____ are meaningful measures that target continuous process improvement actions.

14) _____ are tools for defining the process.

15)_____ is a technique for identifying interdependency problems between the input and the output of the process.

16)_____ is a technique for obtaining and exchanging information to convey your needs and requirements to suppliers and to mutually determine the needs and expectations of your customers.

17)_____ is a technique to determine majority opinion.

18) _____ is a tool for rating problems, opportunities, or alternatives based on specific criteria.

19)_____ is a tool for comparing each problem, opportunity, or alternative against all others.

20)_____ is a technique for getting a team to accept and support a decision.

21) _____ is a tool to improve the process and reduce process cycle time by eliminating non-value-added activities and/or simplifying the process.

22)_____ is a tool that shows a picture of how work actually flows through an organization or facility.

23)_____ is a technique for helping a group examine underlying causes.

24)_____ is actually several tools for collecting, sorting, charting, and analyzing data.

25)_____ is a technique that describes the forces at work in a given situation.

26)_____. The work breakdown structure defines the organization and coding of the deliverable.

27)_____ is a technique for planning, scheduling, and controlling time and estimating, budgeting, and controlling resources.

28) _____ is the continual assessment of threat or opportunity in terms of time, cost, technical feasibility, and customer satisfaction.

29) _____ approach includes several techniques for reducing variations in product or process performance to minimize loss.

30) _____ are techniques to identify cost of conformance and nonconformance.