

# **APPLY QUALITY CONTROL**

**NTQF LEVEL -III**

## **LEARNING GUIDE -59**

<b>UNIT OF COMPETENCE: -</b>	<b>APPLY QUALITY CONTROL</b>
<b>MODULE TITLE: -</b>	<b>APPLYING QUALITY CONTROL</b>
<b>LG CODE:</b>	<b>HLT MLT M012 LO2-LG-59</b>
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**LO2: Assess the quality of service delivered**

<b>Instruction Sheet</b>	<b>Learning Guide 59</b>
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This learning guide is developed to provide you the necessary information

regarding the following content coverage and topics –

- Products/work outputs and work performance
- Work outputs and performance delivered
- Causes of any identified faults

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- check quality against organization quality standards and specifications.
- evaluated service delivered using the appropriate evaluation quality parameters and in accordance with organization standards.
- identify faults and use corrective actions in accordance with organization policies and procedures.

### **Learning Instructions**

1. Read the information written in the “Information Sheets”.
2. If you earned a satisfactory evaluation proceed to next module. However, if your rating is unsatisfactory, see your teacher for further instructions.
3. Read the “Operation Sheet” and try to understand the procedures discussed.
4. Practice the steps or procedures as illustrated in the operation sheet. Go to your teacher if you need clarification or you want answers to your questions or you need assistance in understanding a particular step or procedure
5. Do the “LAP test” (if you are ready). Request your teacher to evaluate your performance and outputs. Your teacher will give you feedback and the evaluation will be either satisfactory or unsatisfactory. If unsatisfactory, your teacher shall advise you on additional work. But if

satisfactory you can proceed to the next Learning Guide.

## 2.1. Quality standards and specification

Quality standards are defined as documents that provide requirements, specifications, guidelines, or characteristics that can be used consistently to ensure that materials, products, processes, and services are fit for their purpose. Standards provide organizations with the shared vision, understanding, procedures, and vocabulary needed to meet the expectations of their stakeholders. Because standards present precise descriptions and terminology, they offer an objective and authoritative basis for organizations and consumers around the world to communicate and conduct business.



**Figure 1.** Principles of Quality Standards

Organizations turn to standards for guidelines, definitions, and procedures that help them achieve objectives such as:

- Satisfying their customers' quality requirements
- Ensuring their products and services are safe
- Complying with regulations
- Meeting environmental objectives
- Protecting products against climatic or other adverse conditions
- Ensuring that internal processes are defined and controlled

Use of quality standards is voluntary, but may be expected by certain groups of stakeholders. Additionally, some organizations or government agencies may require suppliers and partners to use a specific standard as a condition of doing business.

### **2.1.2Quality specification**

Specifications describe the requirements to which a product should conform. They are three specification types : item, supplier, and customer. Specification can be further defined using subtypes. By carefully defining your specification you can ensure that the correct specification is applied as you collect data. Each type of specification can be based on either an Item or Item Category. If your specification is based on an Item, you must assign an item and, depending on the item, an item revision. If your specification is based on an Item Category, and you have specified a default category set using the QA:Quality Category Set profile option, you must assign a category. You can also attach illustrative or explanatory file in the form of text, images, word processing documents, spreadsheets, video, and so on to specifications. Attachments can be used to document processing instructions as well as inspection and disposition procedures. They can be viewed by operations personnel during quality data collection. The quality specifications of a product or service derive from decisions and actions made relative to the quality of its design and the quality of its conformance to that design. Design quality refers to the inherent value of the product in the marketplace and is thus a strategic decision for the firm. These dimensions refer to the features of the product or service that relate directly to design issues. A firm designs a product or service to

address the need of a particular market. A firm designs a product or service with certain performance characteristics and features based on what the intended market expects. Materials and manufacturing process attributes can greatly impact the reliability and durability of the product. Here the company attempts to design a product or service that can be produced or delivered at a reasonable cost. The serviceability of the product may have a great impact on the cost of the product or service to the customer after the initial purchase is made. It also may impact the warranty and repair cost to the firm. Aesthetics may greatly impact the desirability of the product or service, in particular consumer products. Especially when a brand name is involved, the design often represents the next generation of an ongoing stream of products and services. Consistency in the relative performance of the product compared to the state of art, for example, may have a great impact on how the quality of the product is perceived. This may be very important to the long-run success of the product or service. Conformance quality refers to the degree to which the product or service design specifications are met. The activities involved in achieving conformance are of a tactical, day-to-day nature. It should be evident that a product or service can have high design quality but low conformance quality and vice-versa.

<b>Self check</b>	<b>True/false</b>
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Answer all the questions listed below. Use the answer sheet provided in

the next page.

I-True or False: Write TRUE if the statement is correct and write FALSE if the statement is wrong. (5pts. Each)

1. Quality specifications describe the requirements to which a product should conform.
2. Organizations turn to standards for guidelines in order to

meet personal objectives

## Answer Sheet

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

I- True /false:

1. \_\_\_\_\_
2. \_\_\_\_\_

<b>Information shet 5</b>	<b>Checking quality of services delivered.</b>
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### 2.2. Checking quality of services delivered and Organizational structure for quality management

An organizational structure consists of activities such as task allocation, coordination and supervision, which are directed towards the achievement of organizational aims. It can also be considered as the viewing glass or perspective through which individuals see their organization and its environment. Organizations are a variant of clustered entities. An organization can be structured in many different ways, depending on their objectives. The structure of an organization will determine the modes in which it operates and performs. Organizational structure allows the expressed allocation of responsibilities for different functions and processes to different entities such as the branch, department, workgroup and individual. Organizational structure affects organizational action in two big ways. First, it provides the foundation on which standard operating procedures and routines rest. Second, it determines which individuals get to participate in which decision-making processes, and thus to what extent

their views shape the organization's actions. The set organizational structure may not coincide with facts, evolving in operational action. Such divergence decreases performance, when growing. E.g., a wrong organizational structure may hamper cooperation and thus hinder the completion of orders in due time and within limits of resources and budgets. Organizational structures shall be adaptive to process requirements, aiming to optimize the ratio of effort and input to output.

### **Organizational structure types**

#### ***Pre-bureaucratic structures***

Pre-bureaucratic (entrepreneurial) structures lack standardization of tasks. This structure is most common in smaller organizations and is best used to solve simple tasks. The structure is totally centralized. The strategic leader makes all key decisions and most communication is done by one on one conversations. It is particularly useful for new (entrepreneurial) business as it enables the founder to control growth and development. They are usually based on traditional domination or charismatic domination in the sense of Max Weber's tripartite classification of authority

#### ***Bureaucratic structures***

Weber (1948, p. 214) gives the analogy that "the fully developed bureaucratic mechanism compares with other organizations exactly as does the machine compare with the non-mechanical modes of production. Precision, speed, unambiguity, ... strict subordination, reduction of friction and of material and personal costs- these are raised to the optimum point in the strictly bureaucratic administration." Bureaucratic structures have a certain degree of standardization. They are better suited for more complex or larger scale organizations, usually adopting a tall structure. The tension between bureaucratic structures and non-bureaucratic is echoed in Burns and Stalker's distinction between mechanistic and organic structures.



The Weberian characteristics of bureaucracy are:

- Clear defined roles and responsibilities
- A hierarchical structure
- Respect for merit.

### ***Post-bureaucratic***

The term of post bureaucratic is used in two senses in the organizational literature one generic and one much more specific. In the generic sense the term post bureaucratic is often used to describe a range of ideas developed since the 1980s that specifically contrast themselves with Weber's ideal type bureaucracy. This may include total quality management, culture management and matrix management, amongst others. None of these however has left behind the core tenets of Bureaucracy. Hierarchies still exist, authority is still Weber's rational, legal type, and the organization is still rule bound. Heckscher, arguing along these lines, describes them as cleaned up bureaucracies rather than a fundamental shift away from bureaucracy. Gideon Kunda, in his classic study of culture management at 'Tech' argued that 'the essence of bureaucratic control the formalisation, codification and enforcement of rules and regulations -does not change in principle.....it shifts focus from organizational structure to the organization's culture'. Another smaller group of theorists have developed the theory of the Post-Bureaucratic Organization provide a detailed discussion which attempts to describe an organization that is fundamentally not bureaucratic. Charles Heckscher has developed an ideal type, the post-bureaucratic organization, in which decisions are based on dialogue and consensus rather than authority and command, the organization is a network rather than a hierarchy, open at the boundaries (in direct contrast to culture management); there is an emphasis on meta-decision making rules rather than decision making rules. This sort of horizontal decision making by consensus model is often used in housing cooperatives, other cooperatives and when running a non-profit or community organization. It is used in order to encourage participation

and help to empower people who normally experience oppression in groups. Still other theorists are developing a resurgence of interest in complexity theory and organizations, and have focused on how simple structures can be used to engender organizational adaptations. For instance, Miner *et al.* (2000) studied how simple structures could be used to generate improvisational outcomes in product development. Their study makes links to simple structures and improviser learning. Other scholars such as Jan Rivkin and Siggelkow, and Nelson Repenning revive an older interest in how structure and strategy relate in dynamic environments.

### ***Functional structure***

Employees within the functional divisions of an organization tend to perform a specialized set of tasks, for instance the engineering department would be staffed only with software engineers. This leads to operational efficiencies within that group. However it could also lead to a lack of communication between the functional groups within an organization, making the organization slow and inflexible. As a whole, a functional organization is best suited as a producer of standardized goods and services at large volume and low cost. Coordination and specialization of tasks are centralized in a functional structure, which makes producing a limited amount of products or services efficient and predictable. Moreover, efficiencies can further be realized as functional organizations integrate their activities vertically so that products are sold and distributed quickly and at low cost. For instance, a small business could make components used in production of its products instead of buying them.

### ***Divisional structure***

Also called a "product structure", the divisional structure groups each organizational function into a division. Each division within a divisional structure contains all the necessary resources and functions within it. Divisions can be categorized from different points of view. One might make distinctions on a geographical basis (a US division and an EU division, for example) or on product/service basis (different products for different customers: households or companies). In another example, an automobile

company with a divisional structure might have one division for SUVs, another division for subcompact cars, and another division for sedans. Each division may have its own sales, engineering and marketing departments.

### ***Matrix structure***

The matrix structure groups employees by both function and product. This structure can combine the best of both separate structures. A matrix organization frequently uses teams of employees to accomplish work, in order to take advantage of the strengths, as well as make up for the weaknesses, of functional and decentralized forms. An example would be a company that produces two products, "product a" and "product b". Using the matrix structure, this company would organize functions within the company as follows: "product a" sales department, "product a" customer service department, "product a" accounting, "product b" sales department, "product b" customer service department, "product b" accounting department. Matrix structure is amongst the purest of organizational structures, a simple lattice emulating order and regularity demonstrated in nature.

•**Weak/Functional Matrix:** A project manager with only limited authority is assigned to oversee the cross- functional aspects of the project. The functional Managers maintain control over their resources and project areas.

•**Balanced/Functional Matrix:** A project manager is assigned to oversee the project. Power is shared equally between the project manager and the functional managers. It brings the best aspects of functional and projectized organizations. However, this is the most difficult system to maintain as the sharing power is delicate proposition.

•**Strong/Project Matrix:** A project manager is primarily responsible for the project. Functional managers provide technical expertise and assign resources as needed.

### **Quality improvement**

Quality Improvement (QI) refers to activities aimed at improving performance and is an approach to the continuous study and

improvement of the processes of providing services to meet the needs of beneficiaries. This term generally refers to the overriding concepts of continuous quality improvement and total quality management. These phrases in general are used to describe the ongoing monitoring, evaluation, and improvement processes including the management of the improvement process itself. Continuous Quality Improvement (CQI) is an equivalent in health care for Total Quality Management (TQM) in the industry. CQI is an ongoing, organization wide framework in which HSOs and their employees and clinical staff are committed to and involved in monitoring and evaluating all aspects of the HSO's activities and outputs in order to continuously improve them. (American Hospital Association)

### **2.2.1 Principles**

Principles, we all use them (sometimes without knowing it) Whether in our personal lives or in our professional environment, our action take place as a result of a inherent set of principles. You could even define a principle of how we conform ourselves to the principles we previous have set. Some stick to them a great deal, others change whatever seems to be more convenient. In the book - 'the greatest salesman in the world' OgMandino elaborates a set of principles that made him a successful salesman. What happens within a group of people working together? Can you still define a common ground where they share the same principles?

### **Principles within companies and organizations**

Companies and groups, teams departments or domains within companies have there own principles too. They are however less visible and the group might be less aware of the principles they share. Never the less, how implicit they are, the principles can be determined. By making the principles explicit, the driving power behind the organization becomes more clear and with that, the power to improve management of the organization.

Self-Check 5	Written Test
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

Directions: Answer all the questions listed below. Use the answer sheet provided in the next page.

**I-True or False: Write TRUE if the statement is correct and write FALSE if the statement is wrong. (2pts. Each)**

1. Using multiple approaches of quality management is more likely to be effective as compared to using a single approach
2. If an organization gets accredited from a recognized accreditation body, there is no need to implement other quality management activities.
3. Setting and agreeing on standards alone will not lead to quality unless there is a mechanism to motivate or force organizations to comply with standards.
4. Standardization could be considered as the first step in the process of accreditation.
5. All standards of practice provide a guide to the knowledge, skills, judgment & attitudes that are needed to practice safely.

## Answer Sheet

**Score =** \_\_\_\_\_

**Rating:** \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

I- True /false:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

## 2.3.Evaluating service delivered using quality parameters.

In 2019, it's imperative that you provide excellent service to your customers. With a wealth of competition, companies that don't compete on customer experience will lose customers to those that are continually delighting and providing a high quality of service. However, even companies that understand the need to provide exemplary experiences have a hard time measuring their service quality. Since it's a qualitative measurement, rather than a quantitative measurement, it can be challenging to assess. Even some researchers have struggled with the issue of how to measure service quality and understand how you're impacting your customers. In this section we'll list ways to assess service quality and provide actionable insights on how to improve on your findings.

### 2.3.1 How to measure service quality

In a general sense, measuring service quality depends entirely on the context and brand promise, and service quality dimensions vary according to the industry. However, the industry standard and most widely-used metric is SERVQUAL.

#### **SERVQUAL**

SERVQUAL is based on a set of five dimensions which have been consistently ranked by customers to be most important for service quality, regardless of service industry. These dimensions defined by the SERVQUAL measurement instrument are as follows:

**Tangibles:** appearance of physical facilities, equipment, personnel, and communication materials.

**Reliability:** ability to perform the promised service dependably and accurately.

**Responsiveness:** willingness to help customers and provide prompt service.

**Assurance:** knowledge and courtesy of employees and their ability to convey trust and confidence.

**Empathy:** the caring, individualized attention the firm provides its customers. These five SERVQUAL dimensions are used to measure the gap between customers' expectations for excellence and their perception of the actual service delivered. The SERVQUAL instrument, when applied over time, can help you understand both customer expectations, perceptions of specific services, and areas of needed quality improvements. SERVQUAL has been used in many ways, such as identifying specific service elements that need improvement, and targeting training opportunities for service staff. Proper development of items used in the SERVQUAL instrument provides rich item-level information that leads to practical implications for a service manager. The service quality dimensions evaluated by SERVQUAL should be adjusted for optimal performance in different industries, including public and private sector applications. SERVQUAL scores are highly reliable, but when used in different industries may fail to produce a clear delineation of the five basic dimensions. Other measures, such as the Six Sigma model should be considered for applicability in quantifying the gap between service expectations and perceptions.

### **2.3.2 SERVICE QUALITY QUESTIONNAIRES**

In order to improve service, you must understand customer satisfaction and customer expectations. This can be done by asking for feedback from your customers using service quality questionnaires. These are typically completed after the service with a follow-up email or paper survey. Following up immediately is the best way to fix any mistakes or clear up misunderstandings before your customers become detractors.

#### **SERVICE QUALITY QUESTIONS**

There are many types of questions that can be asked in a Service Quality Questionnaire. They should focus on the customer's interaction with the customer service rep (positive and negative), the service and experience overall, and if the customer would use your service again. It's also good to have a couple open text questions so your customers can write in their own feedback.

**Sample questions include**

The service rep was helpful (strongly agree to strongly disagree)

Which of the qualities about the service did you like (include a list patient, friendly, attentive, willing to help, empathetic, etc)

Was there anything about our service that stood out to you? (open-text response) Over the next 12 months, how likely are you to use our product or service again (strongly agree to strongly disagree)

**Self check 6****Written test**

Directions: Answer all the questions listed below. Use the answer sheet provided in the next page.

**I-Essay: Explain briefly:**

1. Write different methods of measuring service quality
2. What are the parameters for measuring service quality?

Note: Satisfactory rating above- 3 points  
points

Unsatisfactory below -3

You can ask your teacher or trainer for the copy of the correct answers

**Answer Sheet**

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**I- Essay:**

1. \_\_\_\_\_  
\_\_\_\_\_



2, \_\_\_\_\_  
\_\_\_\_\_

Information sheet 7	Identifying causes of any faults and taking corrective actions.
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#### 2.4. Identifying causes of any faults and taking corrective actions.

Corrective and preventive action (**CAPA**, also called **Corrective Action / Preventive Action**, or simply **Corrective Action**) are improvements to an organization's processes taken to eliminate causes of non-conformities or other undesirable situations. It is usually a set of actions that laws or regulations require an organization to take in manufacturing, documentation, procedures, or systems to rectify and eliminate recurring nonperformance. The corrective and preventive action is designed by a team that includes quality assurance personnel and personnel involved in the actual observation point of non-conformance. It must be systematically implemented and observed for its ability to eliminate further recurrence of such non-conformation.

##### Examples of corrective actions

Error proofing

Process redesign

- Training or enhancement/ modification of existing training programmes
- Improvements to maintenance schedules
- Improvements to material handling or storage

##### Process steps of corrective action

Cause analysis, root cause

Analyzing non-conformities effects and needs for action

Selection and implementation of corrective actions

Monitoring of corrective actions

Additional audits

#### **2.4.1 Safe or current work practices and procedures**

Safe work practice are generally written methods out lining how to perform a task with minimum risk to people, equipment, materials averment and process. Safe job procedures are a series of specific steps that guide a worker through a task from start to finish in a chronological order Making safe work practice and procedure part of standard operating procedure may seem a matter of common sense. But in fact an effective health and safety program for worker is required by occupational health and safety regulation. Measurements of these items in the audit will include written safe work procedures, practice and/ or instructions include all routine and non-routine expected operations of the company a work place hazardous materials information system Instructions that direct the first aid service, supplies and equipment to be provided and how employees receive that service procedures addressing possible emergencies, training of workers in those procedures, testing their effectiveness, and evaluating and revising the procedures based on drills and actual emergencies in order to meet the above objectives, the audit checks whether

- The employee has safe work procedures based on the hazard/ risk assessment done at the work site
- Employees participate in the hazard/risk assessment
- There is a first aid assessment done for each site that the company operates
- There are procedures for workers to follow when they are injured

- Employ know their roles in the first aid and emergency response plan training is documented

#### **2.4.2 Identifying problems during quality control procedure**

Opportunities for improvement can be found at every level of the health system, problem solving and process improvement work best when conducted as part of a quality assurance program in which standards are developed and quality indicators are monitored. Nevertheless, the problem-solving steps presented here in can be applied whenever and however an opportunity for improving quality arises.

#### **Approach to quality assurance**

Four main principles define the approach presented in this monograph for ensuring and improving quality and for resolving quality problems as they arises. These are summarized below:

**A focus on client needs:** Client needs and desires should derive the planning and performance of any activity. Ensuring quality begins with knowing who the clients are and understanding their needs and expectations. Within this idea of 'client' every worker plays the complementary roles of serving clients and of being a client health of the individuals and communities they serve.

**A focus on system and process:** The quality of health services is usually judged by outcomes, specifically, the immediate and long term effects on the service provided.

**A focus on data based decisions:** Improving processes requires information about how they function. Decision about problem area and improvements should be based on accurate and timely data, not on assumption

**A focus on participation and team work in quality improvement:** For quality improvement to succeed, workers must participate in making changes in the organization's system and processes

### **2.4.3 Evaluating causes for poor work activities**

A simple definition of unsatisfactory job performance is a gap between the employee's actual performance required by the organization

#### **There are three basic types of poor performance**

1. Un satisfactory work content- in terms of quantity, quality etc
2. Breaches of work practice, procedures and rules- such as breaching occupational health and satisfy requirements
3. Employees' personal problems usually off the job issues that affect their performance at work

The performance management process should be able to identify these problems. The performance management interview and feedback processes can discuss the problems to diagnose the cause and explore possible remedies, such as job redesign, training or counseling

#### **The following list indicates the scope of casual factors and their symptoms, and suggests appropriate remedial actions**

- The work environment: inadequate resource and equipment
- Work organization: Work flow issue
- Employee condition: Excessive work load,
- Recruitment/selection issues: mismatch of job and employee
- Promotion: employee promoted beyond
- Stress

#### 2.4.4 Quality improvement techniques

Quality improvement sometimes referred to as continuous quality improvement or TQM. Its application to health care, and to laboratory practice in particular

The ability to apply principles of quality improvement to evaluate systems performance is one of the five competencies

Quality improvement tools and techniques may include:

Run charts, control charts, histograms and scatter grams to present routine quality control data

Plan, do, check, act (PDCA) logic tree ,similarity/difference analysis,Pareto charts and analysis and force field/strength weakness opportunities threats (SWOT) analysis

<b>Self check 7</b>	<b>Written test</b>
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#### Answer the following questions

1. Describe and discuss the six steps to solve quality problems and improving processes
2. What is safe working practice?
3. Describe quality improvement tools and techniques

Note: Satisfactory rating above- 5 points  
points

Unsatisfactory below -5

You can ask your teacher or trainer for the copy of the correct answers.

## Answer Sheet

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### I- Essay:

1. \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

3. \_\_\_\_\_  
\_\_\_\_\_

**Operation Sheet-3**

**Solving quality problems**

### Techniques for Solving quality problems and improving processes

**Step 1-** Identify problems and select opportunities for improvement

**Step 2-** Define the problem operationally

**Step 3-** Identify who needs to work on the problem

**Step 4-** Analyze and study the problem to identify major causes

**Step 5-** Develop solutions and actions for quality improvement

**Step 6-** Implement and evaluate quality improvement efforts

<b>Operation Sheet-4</b>	<b>Preventive action</b>
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**Techniques for preventive actions**

**Step 1-**Data collection for potential non-conformities

**Step 2-** Cause analysis for root cause for potential non-conformities

**Step 3-** Selection and implementation of preventive actions

**Step 4-** Monitoring of preventive action

**Step 5-** Records of corrective and preventive actions

<b>LAP Test 2</b>	<b>Practical Demonstration</b>
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Name: \_\_\_\_\_ Date: \_\_\_\_\_

Time started: \_\_\_\_\_ Time finished: \_\_\_\_\_

**Instructions:** Given necessary templates, tools and materials you are required to perform the following tasks within 3-4hour.

**Task 1. Solve quality problems**

**Task 2. Perform preventive action**

### **References and Manuals**

1. Claire capon (2000) **understanding organizational context**, Pearson education.
2. Elizabeth Chell. (2001) **Entrepreneurship: globalization, innovation and development**. homson learning.
3. **Trainer guide manual**, (Micro enterprise creation, small business management, business growthstrategies), 2002.