

## INTERACTION BETWEEN PRODUCTS AND SERVICES QUALITY AND ENVIRONMENTAL PROTECTION

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### **Abstract:**

*The environment is an essential element of human existence and is the result of combining natural elements with elements created by human activity. All this interact and influence the living conditions and opportunities for future development of the whole society. Quality of products and services is one of the most important forms of assessment capacity to achieve a product or service that all personnel involved in the conduct and activities of improvement, increased productivity, satisfaction of all customers, increase market competitiveness. The quality is an important factor because society priorities, customer needs, so consumer, the citizen.*

**Key words:** *Quality, Environment, ISO 14000, environmental principles*

**JEL Classification:** *L15, Q5*

**Products and services quality.** In a general sense, quality is an attribute of things - products or services; in a restrictive way, quality is defined as a positive feature of a product or service that differs from the other class to which it belongs. The term comes from Latin, where qualis has the meaning of "way of being".

Quality is a concept with a very wide use, which makes her extremely difficult to define scientifically. Quality is considered by some specialists: meeting a need, the level of consumer satisfaction, the ability to fulfill a need, all means to achieve a viable product, compliance with a given model, fully satisfying the beneficiaries.

In dictionaries you can find many definitions of quality. There are also synthetic definitions: "Quality is customer satisfaction or quality means appropriate use ("fitness for use").

SR ISO 8402-1991 standard defines quality as "all the characteristics of an entity that gives it the ability to meet the needs expressed or implied." Quality is not expressed by a single feature, but by a set of features that vary continuously in relation to customer needs. It also notes that must be satisfied not only specifically expressed needs, but also the default.

The term quality of an entity means the quality of a product, service, process, activity, organization, system, person, which greatly expands the scope of quality. Technical sense of quality means the degree of compliance with the specifications in the product documentation.<sup>1</sup> (Militaru, C., Dragut, B., 2009)

Quality means to answer customer requirements. According to leading economists, quality is:

- Juran gave the following definition of quality: "Quality is customer satisfaction with the best product or service at the most reasonable price" (Juran).

- Total market characteristics, engineering, manufacturing and maintenance of a product or service compound used by the product and service will meet the expectations of the customer (Feigenbaum);

- Kramer and Twigg defines quality as "complex characteristics that individualize a particular product or service and which are important in determining the acceptability of the buyers".

- Management is defined as the addition will staff education (Noica);

- Quality is what the customer requires and what not meet our own technical and economic requirements;

- Quality is the work done right the first time and then permanently, as it is cheaper to prevent than to repair.

The concept of "product" used to mean "good" is a "material good resulting from a trial of labor" or "all items or goods obtained in the production process." Traditional marketing product defined as "the sum of tangible attributes and characteristics, physical and chemical combined in an identifiable form" (Stanciu, I., 2002). With the technological level is about the same, firms differ among themselves by the quality of their products and services.

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<sup>1</sup> Militaru, C., Dragut, B., - *Management through quality*, Ed. Printech, Bucharest, 2009, pg. 10;

Service concept refers to the result of which is the interface between supplier and customer services are all activities that some people evaluate the benefit they provide to other members of society. Making a service may involve (Stanciu, I., 2002):

- an activity performed on a tangible product;
- an activity on an intangible product;
- delivery of an intangible product;
- create ambience for the customer.

Services have certain characteristics that distinguish them more or less product. Thus, services are characterized primarily by immateriality and intangibility. Unlike product, which is in itself, the service is generally impalpable, intangible, cannot be seen, tried, tasted, heard, smelled.

Services are perishable, they can be stored and this leads them to another feature, namely perishable. Another feature of the services, which fundamentally distinguishes them, is the simultaneous production and consumption. Service change is possible, but the service provided cannot be returned, with an associated risk purchasing phenomenon, linked the decision to purchase the service. As services are processes and not objects, clients tend to look quality characteristics in the tangible part associated of the service so they can assess and compare to what awaits. (Drăguț, B.)<sup>2</sup>

Service inseparability of provider from the individual user characterizes most services. That act is effective service delivery and to link the activity provider, the means of the performance and scope of service, social or material reality or altered or modified. The main difference between the production of manufacturing services and material goods is that generally, the client is part of the production (Ioncica, M., 2006).

Variability or heterogeneity is a feature of the service compared to impart products cannot be repeated in an identical manner to a benefit cannot be copied. Services are performed by people, they are not the same, and the ideal is that services may be personalized according to each client.

**Creating environmental policy of the European Communities.** The European Union

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<sup>2</sup> Drăguț, B. The Dimensions of air transportation service's quality in The 33 Annual Congress of the American Romanian Academy of Arts and Sciences (ARA) – Proceedings, vol. I, Press Editor of Polytechnic Institute from Montreal (Canada), 2009, pp. 417- 419, ISBN 978-2-553-01433-8;

has adopted regulations and has taken concrete actions in saving biodiversity since 1970 and also played an active role on the international stage.

When pollution phenomena have become pressing, the European Communities has expressed a wish to achieve EU environmental policy, meaning the legal means have been identified to enable development and its implementation. On 22.07.1971, the European Commission adopted its first communication on environmental policy of the European Communities.

On 21.10.1972, following the International Conference in Stockholm, Heads of State and Government of the member countries of the European Communities, meeting within the Paris Summit, decided achieve EU environmental policy (which only materialized in 1979). They were subsequently adopted a series of six environmental action programs. In the early 70's, have been recognized the necessity and legitimacy of Community environmental policy and over time developed progressive right environmental community.

In February 2000 there were 708 existing Community legislation on environmental protection, of which 266 directives, 124 regulations and 318 decisions<sup>1</sup>.

Objectives underlying the construction of EU environmental policy were established by the European Community Treaty, Article 174. It states that European environmental policy objectives are:

1. preserve, protect and improve the environment.
2. protection of human health.
3. prudent and rational utilization of human resources.
4. promoting measures at national level to treat regional environmental issues and more.

Entered into force on 1 July 1987, the Single European Act introduced in the EEC Treaty (European Economic Community) devoted a special title environment (Title VIII). Art.130R -1 defined objectives pursued by Community policy on the environment, it aimed at "preserving, protecting, improving environmental quality," "contribute to protecting human health" and "ensure a prudent and rational utilization of natural resources". On the other hand, the Article 130R -2 states that "requirements on

environmental protection are part of other Community policies".

### ***Environmental protection in view of the Maastricht Treaty<sup>2</sup>***

Maastricht Treaty, the new Title XVI, devoted solely to the environment, stated in the first paragraph of art.130R, environmental objectives, and in paragraph 2 of the same article states that "the protection requirements must be integrated into the environment defining and implementing other Community policies ". European institutions will have to aim for a level of protection, to act for the principle of "polluter pays" and tackle pollution at source priority.

***Principles underpinning EU policy and strategy in the environmental protection.*** Currently, the European Union following principles enshrined environmental law:

***1. Principle of sustainable development.*** It takes into account the rational use of resources, and renewable ones, in a manner that does not compromise the environment. Exploitation must be such as to ensure optimum sustainable yield. World Commission on Environment and Development Commission <sup>3</sup>, in 1987 defined sustainable development as "development that meets present needs without compromising the opportunities of future generations". At Community level, in 2001, the European Commission's proposal to the Gothenburg European Council adopted the "*European Union Strategy for Sustainable Development*", which aims to strengthen the coherence of different policies in terms of environmental, economic and social, to sustainable improve the welfare and living conditions of present and future generations<sup>4</sup>.

***2. Principle of protection*** involves avoiding any activities harmful to the environment and taking all possible measures to prevent environmental damage. Principle requires a

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<sup>2</sup> Maastricht Treaty was signed by the European Council on 7 February 1992 in the Dutch town of Maastricht. It was the most profound change to when the Treaties establishing the European Community. This treaty set up the European Union, for which is also known as the Treaty on European Union.

<sup>3</sup> World Commission on Environment and Development, headed by Gro Harlem Brundtland, former Prime Minister of Norway, whose findings have led to the convening of the United Nations Conference on Environment and Development in Rio in 1992.

<sup>4</sup> Catherine Roche, "Droit de l'environnement", Editura «Gualino » Paris, 2006, p. 43.

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<sup>1</sup> www.infoeuropa.ro

cautious attitude and protecting environmental factors in their actions.

Implementation of this principle is usually through or in conjunction with other measures and principles, often with the precautionary principle.

**3. Polluter pays principle** was enunciated by the Organization for European Cooperation and Development (OECD), the Recommendation C (72) 128 of 26 May 1972, and was later incorporated in the legislation. Transposed into Community law the principle was made by the European Parliament and Council Directive nr.2004/35<sup>1</sup> from 21 April 2004, which aims to establish a framework to prevent and repair damage based on environmental responsibility, based on the "polluter pays" principle.

This principle results in internalization of pollution costs (at the level of pollution), pollution prevention and damage caused by pollution. Principle allows the imposition by public authorities in charge polluter, taxes prevention and remediation, representing a true "environmental tax" consists of various taxes, fees and excise taxes. On the one hand, these taxes provide revenue necessary to carry out a series of actions to protect the environment but on the other hand, can induce the feeling that once paid taxes polluter is free to pollute and can pollute however, because he paid for it.

**4. Precautionary principle**, often called the principle of preventive action or priority correction from source is included in article 174 of the Treaty of Amsterdam. Its application is to ensure prevention of attacks on the environment. It should be applied before undertaking a specific action or approach affecting the environment. When there is a risk, even potential, there is the possibility of damage, and must be prevented. Principle materialized in Council Directive no. 85/337/EEC of 28 June 1985 on environmental impact assessment of projects likely to have significant effects on the environment<sup>2</sup>.

The environmental impact assessment was completed in 2001, nr.2001/42/CE Directive of 27 June, on the assessment of the environmental consequences of certain plans and programs<sup>3</sup>.

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<sup>1</sup> The Directive was published in the Official Journal no. L 143 of 30.04.2004, pp. 56-75

<sup>2</sup> The Directive was published in the Official Journal of the European Communities no. L 175 of 07/05/1985 pp. 40-48.

<sup>3</sup> The Directive was published in the Official Journal of the European Communities no. L197 of 21.07.2001, pp. 30-37.

**5. The precautionary principle** requires environmental pollution, rather than seek further solutions to remedy the situation. If prevention is based on a risk assessment in relation to knowledge at a time, the precautionary principle requires acting even in the absence of scientific certainty.

The foundation of this principle is that the absence of scientific certainty shall not constitute an obstacle to take the necessary steps to avoid serious environmental attacks.

Treaty on European Union has only one explicit reference to the precautionary principle enshrined in Title environmental protection. (art. 174 - ex Article 130r - paragraph 2, second sentence).

**6. The principle of public participation** implies the right of citizens, associations, groups and organizations to participate in solving environmental problems. It is inextricably linked to the right to information, which is essential for applying<sup>4</sup>.

He has received international acknowledgment at the Rio Summit, being registered as the 10<sup>th</sup> principle in the Declaration adopted with that opportunity.

At Community level since February 14, 2005, entered into force Directive of the European Parliament and of the Council of 28 January 2003 nr.2003/4/CE<sup>5</sup>, regarding on public access to environmental information.

**7. The principle of integration** is envisaged that implementation of environment protection cannot be acting independently; implementation of environmental protection measures must be done in an integrated manner, taking into account environmental issues in all other policies. Environmental policy must be an inclusive policy that ensures a balance between various competing interests. At Community level, the European Community Treaty, the principle is found in the provisions of Article 6, according to which "environmental protection requirements must be integrated into the definition and implementation of Community policies and activities referred to in Article 3, in particular promoting sustainable development".

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<sup>4</sup> Louis Cartou, "L'environnement et besoin d'information" in Revista "Les Petites Affiches" nr.4/1991, p. 499.

<sup>5</sup> The Directive was published in the Official Journal of the European Union no. L 41 of 14.02.2003.

**8. Principle the State exercising the sovereign right to exploit their natural resources** so as not to harm other states. This principle results from the Stockholm Declaration of 1972.

**European programs dealing with environmental protection.** In 1962 the Council of Europe takes the role of initiator and set up a committee of European experts to save nature and natural resources, and in 1964, a committee with responsibility for water pollution. Directed actions in favor of environmental protection in Europe were initiated and implemented in the EU institutions. The main responsibilities in this area back to the European Commission, Council and Parliament.

A major contribution to the achievement of environmental protection has European Environment Agency, specializing Community institution and the Member States of the European Union, which ensure the implementation of Community environmental objectives and programs. DG XI is the structure of the European Commission responsible for environmental policy, as well as nuclear safety and civil protection. Official mission is "To protect, preserve and improve the environment for present and future generations and promoting sustainable development."

LIFE (Financial Instrument for the Environment) was established by the European Union Council Regulation nr.1973/92 on May 21, 1992<sup>1</sup>, as a financial tool designed to help the implementation and development of policy and legislation on environmental protection. The program co-finances actions in favor of environmental protection in the European Union and certain third countries. The program included three phases<sup>2</sup>: LIFE AND with a budget of 400 million euro for the period 1992-1995, LIFE II with three components: LIFE Nature, LIFE Environment and LIFE Third State with a budget of 450 million euro for the period 1996-1999, and also, LIFE III has a budget of 640 million euros for the period 2000-2006.

**Life + program** were established on 29 September 2004 the European Commission as an extension of the implementation of the Programme

Life after 2006, in order to rationalize funding in this area for the period 2007-2013.

Life + program focuses on concrete measures will be considered specialized networks to strengthen environmental and generalization of good practices that will influence the content of policies applied. LIFE + program consist of three components:

- LIFE + "Nature and Biodiversity ";
- LIFE + "Policy and environmental governance" and
- LIFE + "Information and Communication".

The financial envelope for the implementation of the LIFE + financial instrument was set at 2,143,409 million for the period from January 1, 2007 and December 31, 2013.

**The Eco-innovation** is a cross-cutting initiative provides funding for projects in various sectors that reduce environmental impact and promote more efficient use of resources. Priority areas include recycling, buildings, food and beverage, and eco-businesses. In the period 2008 - 2013 will be funded projects worth 300 million euros<sup>3</sup>.

**ISO 14000 standards** are general standards on environmental management systems designed to control the organization's processes impact the overall environment. ISO 14000 series of standards was developed by the International Organization for Standardization (ISO) in order to determine the primary requirements for environmental management systems.

Standards define models of environmental management systems that can be implemented by an organization, in internal or external purposes, provides tools for assessing environmental management system compliance with referential choice, environmental performance evaluation, preliminary analysis and environmental assessment site organization.

#### **The main standards of ISO 14000**

**SR EN ISO 14001:2005** *Environmental Management Systems. Requirements and user's guide.* This standard establishes requirements for environmental management system that allows an organization to formulate and to implement policy and objectives taking into account legal requirements and other requirements to which the organization subscribes, and information about significant environmental impacts.

<sup>1</sup> The Regulation was published in the Official Journal of the European Communities No. L 181 of 22 July 1992.

<sup>2</sup> [http://ec.europa.eu/environment/life/publications/lifepublications/generalpublications/documents/life\\_en.pdf](http://ec.europa.eu/environment/life/publications/lifepublications/generalpublications/documents/life_en.pdf)

<sup>3</sup> European Commission official website, accessible at: [http://ec.europa.eu/environment/eco-innovation/about/index\\_en.htm](http://ec.europa.eu/environment/eco-innovation/about/index_en.htm)

**SR EN ISO 14004:2005** *Environmental Management Systems. Guide on principles, systems and application techniques.* Is a guide to establishing, implementing, maintaining and improving an environmental management system and its coordination with other management systems.

**SR EN ISO 14015:2005** *Environmental assessment of the site. Guidelines for environmental assessment of the site.* This International Standard provides guidance on how to carry out an environmental assessment of sites and organizations (EMAO) through a systematic process of identifying environmental aspects and environmental issues and causes, if any, consequences for the business.

**SR EN ISO 14040:2007** *Environmental Management. Life Cycle Assessment. Principles and framework.* The organization's **environmental policy** is achieved through the development of activities related to:

- Plan activities and their integration into society by highlighting issues and objectives pursued by environmental program;
- Implementation and functioning of the system highlighting the structure, responsibilities, training and awareness necessary skills, communication between sectors, control and prevention of emergency situations that may arise in the system, design and implementation of documentation and those activities;
- Checking and corrective action on specific activities within production processes that auditing system.

The main **advantages** of implementing an environmental management system are to **reduce** raw material **costs**, reduce energy consumption, reduces transport and storage costs, lower insurance premiums through risk reduction.

By implementing environmental management system on the market appear certain benefits: improved public image, taking advantage of new markets, keeping markets already won. Also appear certain **benefits for clients**: increase customer confidence in the probity supplier, competitive prices due to minimization of waste, better use of financial resources, and **employee benefits**: improved living and working conditions, health and growth potential improvements quality

of life, committed to a policy of improving environmental quality will increase employee involvement. Companies in the EU (as those who have business with these companies) make serious efforts to implement eco-management/eco-marketing systems and introducing these tools into new fields and groups of products and services.

## CONCLUSIONS

Preoccupation for the environment has emerged on the European agenda in the early 1970's. Environmental policy of the European Union (EU) was created by the European Community Treaty and aims to ensure environmental sustainability measures. The Maastricht Treaty, environmental protection is a key priority of the European Union, where it is signaled the need to integrate and implement environmental policy in sector policies such as agriculture, energy, industry, transport. The main pillar of the environmental policy is the concept of sustainable development, which is a transversal policy which includes all other Community policies, highlighting the need to integrate environmental protection requirements into the definition and implementation of all policies.

ISO 14000 is now implemented by many companies in the world. It specifies requirements for an environmental management system to allow to an organization to form a policy and objectives taking into account legislative requirements and information about significant environmental impacts.

The main goal of ISO 14000 series is to notify environmental issues and their impact on him, to specify the need to implement environmental policies and principles by businesses, to promote ideas related to ecology and ways to implement them, to recommend systems and environmental management programs, specifying how to implement them.

In conclusion it can be said that environmental quality requires insurance protection. Is necessary to retain and increase environmental quality, reducing the negative effects from human activities and reduce overall pollution.

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