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WAYS OF IMPROVING QUALITY MANAGEMENT IN THE PORK INDUSTRY

***Abstract:** In quality management, it is important to design some basic principles to be taken into account in the design of quality policy. Particular importance should be paid, in this respect, to the establishment of such basic principles in the implementation of a quality management system in the pork industry where we need to observe the following steps: focus on prevention; on-going improvement; customer focus; promotion of the “zero defects” principle; involvement of the entire staff; ranging quality first; customer satisfaction. All these measures aim, in the pork industry as well, at identifying and observing of eight principles of quality management that should become fundamental in the establishment of a series of quality standards.*

***Keywords:** Quality management, Pork quality, Principles, Standards*

1. INTRODUCTION

Literature contains different opinions concerning the **basic principles of quality management** [1] that can be synthesised on the ground of the studies carried out in different fields of the agro-alimentary industry, as follows:

- Some researchers [2] claim that we need to take into account the following basic principles: internalising the customer – supplier relationship; improving quality continually; operationalising through the true involvement of the organisation’s top leadership; focusing on the customer; promoting competitiveness.
- Other authors [1, 3, 7, and 10] emphasise the following: ensuring process quality; improving continually.

Finally, other authors claim that the basic principles of quality management are

as follows: involving the leadership; ensuring the commitment of the entire staff; improving quality rationally.

2. MATERIAL AND METHOD

In order to improve quality management in the pork industry, organisations in the field aim mainly at identifying the principles to take into account while observing the ISO principles in the process of on-going improvement of the organisation’s performance. To meet quality management requirements concerning raw matter and pork products in both customers and everybody else involved in the field, we need to observe the eight main standardised principles: management systemic approach; process-based approach; customer focus; staff involvement; continuous improvement; leadership; fact-based decision-taking; mutual advantageous relationships with the suppliers.

3. RESULTS AND DISCUSSION

A. Management Systemic Approach
in the pork industry aims at identifying, understanding, and leading a system of inter-correlated processes of the organisation to reach the objectives established thus contributing to ensuring efficacy and efficiency of this type of activity.

By applying this principle that supposes the improvement of quality management in the pork industry the following should be taken into account:

- defining the system of processes through the identification or development of the processes impacting the achievement of definite objectives;
- improving continuously the system of technological processes taking into account the results of measurements and evaluations concerning this production system;
- establishing critical resources for the development of activities in the pork industry;
- structuring the system so as to reach the goals (producing high quality and safe pork and pork products) in the most efficient way and with the lowest costs.

With respect to the ISO 9000:2001, we consider that, from the point of view of the improvement of quality management in the pork industry it is important to pay special attention to the systemic approach of the “process network” of the organisation by integrating processes that intervene in the relationship with the customers and with the other interested parties in the activities within the pork and pork product organisation. The following should be taken into account:

- defining the requirements concerning the production management activities in the pork industry;

- assessing and analysing the results of the technological process;
- identifying the resources necessary to develop efficiently the process of production;
- producing in proper quality conditions.

This analysis should be made by the management of the organisation in the pork industry to identify the possibilities of improving the quality management system so that both customer and other parties’ requirements are best met.

By involving the management in the implementation of the improvements stipulated, we can take the production cycle again and again, thus ensuring the premises necessary to improve continually the quality management system in the pork industry.

Approaching quality management systemically covers all the system elements and processes of an organisation. These are defined by the „Key Quality Checkpoints” concepts, i.e. by those points of an organisation system in which we can emphasise the factors considered relevant for quality:

- the **input systems** cover organisations and people, internal and external, from which a certain organisation gets products and information: suppliers, marketers and purchasers; the goal is to better select and coordinate the systems mentioned;
- the **inputs** are the resources (human, financial, informational, etc. materials) necessary to reach the desired goals; the goal is to meet requirements concerning quantity, quality, resource costs, and delivery deadlines;
- the **process of transformation of “inputs” into “outputs”** should be efficient and ensure the achievement of quality requirements in the pork industry;

- the **outputs** are the products and services produced by the organisation; the goal is to check the way quality requirements are met (by the final inspection);
- the **output systems** cover the organisations and people that get the products and services; the goal is to ensure “total” satisfaction of the customers’ needs, desires, and expectations.

The perception of the customers’ needs and the way they reflect in the quality of the finite products (Q_5) should be the basis of the decisions and measures in every other point of the system ($Q_1 \dots Q_4$).

These measures refer to the following: the training of the staff; the use of statistic methods and of other techniques and tools of quality management.

On the other hand, to meet properly finite products quality requirements, each activity should be approached processually in close relationship with other activities upstream and downstream. In each production phase we need to take into account certain requirements, and the measure in which these requirements are met can be traced in further phases. This is why the participants to the process should be aware of these interdependences and know the negative impact of their improper work on the finite product.

B. Process-Based Approach

When the activities of an organisation are approached as a process, the desired result can be reached in more efficient conditions. Applying this principle involves the following: defining the processes necessary to obtain the desired result; assessing possible risks, consequences and impacts of the processes on the customers, suppliers, and other interested parties concerning the processes; identifying internal and external customers, suppliers and other parties

interested in the processes; identifying process interfaces with organisational functional entities; identifying and assessing process inputs and outputs; establishing clearly responsibilities and authorities concerning product management.

In the design of the technological process in the pork industry, we need to take into account the following: activities; other resources necessary to obtain the desired results; information; materials; control measures; methods; staff training requirements; activity success; succession of the steps.

Each process has inputs and outputs and involves people and/or other resources. The **process** is or should be a **transformation that adds value**. Inputs and outputs are of two types:

- *information type*: product requirements; informational feedback concerning the needs and the product use; information concerning the product features and state;
- *product type*: raw matter; finite products; intermediary products.

Quality management is achieved through organisational processes from two points of view:

- from the perspective of product quality and information proper to the processes;
- from the perspective of the structure and functioning of the processes within which intervene products and information.

In order to assess a quality management system, we need to take into account the following aspects: if the processes are carried out according to documented procedures; if the processes are defined and if their procedures are documented; if the processes are so efficient that they allow expected results to be obtained.

C. Customer Focus

The main mission of an organisation in the pork industry aspiring to quality management is to meet the needs and requirements of the customers: organisations should be aware of the fact that long- and short-term survival is possible if they adapt their services to the customers' needs. Quality is what customers want and not what the organisation decides is better for the customers.

Customer-focus is not enough to meet quality management requirements in the pork industry: organisations also need well-designed strategies to meet customers' requirements. Applying such a principle requires the following:

- a balance between the way customers and other parties' (local community, suppliers, organisation's staff; owners; society) needs are approached;
- communication of the customers' needs and expectations within the organisation;
- assessment of customers' satisfaction to improve results continuously;
- understanding of all the customers' needs and expectations concerning the following: product and service features; product and service price; products and services;
- customer relationship management.

Identification and satisfaction of customers' requirements should be the starting point of all activities within the organisation. **Quality should be defined in relation to customers' requirements**, requirements determined, in their turn, by the following:

- customers' expectations;
- customers' desires;
- customers' needs.

Customers' requirements are turned into specifications and on their

ground products are made with certain quality features.

A basic element of the quality programme is the **internalisation of the customer – supplier relationship**.

D. Staff Involvement

Employees at all the levels of a pork processing organisation is the main element of an organisation and their total involvement allows their abilities to be valorised to maximise the organisation's benefit.

Applying this principle involves the following: taking responsibility in solving problems; focussing on customers' needs; developing the feeling of pride about being a part of the organisation; developing a creative spirit in the definition of the organisation's future objectives; involving actively in the identification of improvement opportunities; sharing knowledge and experience among working teams and groups; better representing the organisation from the point of view of gaining satisfaction from one's work, with valorising competency, and with knowledge and experience.

E. Continuous Improvement

Applying the principle of continuous improvement involves the following:

- applying the basic principles of continuous improvement to ensure substantial improvement of the technological process;
- educating and training each employee so that he/she can use the techniques and tools specific to continuous improvement, such as: the Deming cycle, the re-engineering of processes, process innovation techniques, and quality management techniques and instruments;
- assessing periodically excellence criteria to identify the areas that need prospective improvement;

- improving continually the efficiency of all the organisation's processes;
- improving continually processes and products as constant concern for each person in the organisation;
- promoting prevention-based activities;
- acknowledging the results of the organisation's staff from the point of view of continuous process improvement;
- establishing the objectives concerning the improvement and measures necessary to achieve these objectives.

To facilitate this process we need team work, promoting quality clubs, etc.

F. Leadership

Leaders ensure the concordance between the organisation's goal and its internal environment. They need to develop an environment in which employees get totally involved in the achievement of the goals.

Applying this principle involves the following:

- ensuring resources and freedom of action necessary for the entire staff to develop activities responsibly;
- ensuring a climate of trust by removing fear;
- adopting a pro-active attitude and personal example;
- educating and training the entire staff;
- implementing the strategy necessary to achieve these objectives;
- encouraging and acknowledging the employees' contribution;
- understanding the changes in the external environment and the answers to these changes;
- taking into account the requirements of the customers, of

- the local community, of the suppliers, and of the society;
- promoting open and honest communication;
- establishing the goals of the organisation;
- establishing a system of values and ethic norms to be observed at all the levels of the organisation;
- establishing a clear vision on the organisation's future.

Leadership involves at least the following three elements:

- the ability of using different forms of exercising power to impact the group members' behaviour and way of acting;
- unequal distribution of the power between the members of the group and the leader in favour of the latter;
- the existence of a person that accepts direction, guidance from the leader.

Some organisations have given up the traditional management style achieving what is called "managerial penetration". Under this cover they unite features reflecting the way of training and assuming responsibilities by the organisation's management, i.e. initiating, supporting, and promoting the culture of total quality.

G. Fact-Based Decision-Taking

Applying this principle involves the following:

- analysing data and information using the proper methods;
- collecting data and information relevant from the point of view of the goals;
- understanding the role of statistic methods in data and information analyses;
- making decisions and taking necessary measures on the ground of experience and intuition and of logically-sustained analysis;

- taking the necessary measures to make data and information enough clear, available, and accessible.

It is recommendable that, before using data to solve problems and to make decisions, data be checked rigorously.

Data and information are necessary starting with the identification of the customers and of their requirements and ending with customer satisfaction. These data should be taken, processed, and updated continuously. It is advisable to check them rigorously before using them in problem solving and in decision making.

H. Mutual Advantageous Relationships with the Suppliers

An organisation depends directly on its suppliers, but the reciprocal also is valid. Establishing an advantageous relationship between the two parties has a positive impact on their ability to meet customers' requirements.

Through its policy in the field of pork quality, the organisation defines its "guiding principles" to be promoted in its relationship with customers, suppliers, and anybody else interested in its activities.

An organisation and its suppliers are interdependent and a mutually beneficial relationship increases their ability of creating value.

These eight principles of the quality management are the "fundamental book" of continuous improvement in the pork industry. The practical support to do it should come from a system that, among its specific requirements, allows practical application of the principles.

At national level, quality control activity is ensured by the **National Sanitary-Veterinary and Food Safety Authority (N.S.V.F.S.A.)** that carried out its activities in the following fields:

- family farms and farmsteads;
- raising, collecting, and processing units, marketing units, and food

service units through their own staff and area veterinaries.

N.S.V.F.S.A. controls the following categories of processes along the route from the farm to the fork [5]: slaughtering; raw product (cut meat); raw meat (minced meat); completely cooked meat, unstable from the point of view of its shelf life; thermally processed meat, stable from the point of view of its shelf life; thermally processed meat, incompletely cooked, unstable from the point of view of its shelf life; non-thermally processed meat, stable from the point of view of its shelf life; product with secondary inhibitors, unstable from the point of view of its shelf life, mechanically separated; thermally processed meat, sterile from the point of view of its shelf life; irradiated product.

Process	This column should point to the moment when scientific documentation is available or the legislation in action.
Potential hazards	This column should point to the potential hazards debated in literature for each process apart.
Process parameters	This column should point to the conditions in which scientific research described in literature was carried out.
Decisional criteria	This column should point to the results of scientific research or to legal requirements.
Scientific documentation	This column should point to the real source of information described in the three previous columns indicating the web page of the publication.

Source: (4, 7).

Table 1. Information necessary in the documenting of the pork route from the farm to the fork

Since critical points along the pork route from the farm to the fork can be found in each of these processes, any **pork quality manual** should contain the information presented in Table 1.

Lately, they have talked, in swine breeding, more and more about the role of the **precision management** in the increase of the profit in the pork industry [9]. **Here are a series of managerial practices that allow the swine breeder to improve his/her job continuously:**

- **expectation design** (goals to reach and processes allowing it) in protocols that stipulate clearly when to do a certain thing (e.g., cleaning farrowing boxes), how to do a certain thing (e.g., cleaning farrowing boxes), and why expectations are important;
- **making objective measurements;**
- **practicing self-assessment at all levels;**
- **accepting change and adapting to evolution;**
- **taking key-measures;**
- **carrying on processes and protocols.**

4. CONCLUSIONS

We think that the proper functioning of the entire system depends on men, the main point of quality processes. An employee should be first competent, which is possible through continuous training. Men should also be willing to valorise

their potential and to be team-spirited, i.e. agree to cooperate in order to achieve the organisation's goals.

For a quality management system to be efficient, these processes, responsibilities, authority, procedures, and resources need to be proper and coherently defined. It is also necessary to coordinate and ensure the compatibility of processes and to define their interface.

To meet customer requirements, we suggest improving quality in all the fields of activity of the organisation, not just the activities involved in production or services: only when all employees and all the compartments meet customer's expectations the organisation can earn and maintain his/her trust.

Continuously improving products and services is possible only through the continuous improvement of the organisation's processes in each stage of the product life cycle, starting with marketing studies to identify customers' requirements and up to ensuring product proper use. In this case, employees that need to carry on the improvement of the activities play the main role.

For an efficient leadership we need to fulfil the following conditions: analyse managerial structure; state the organisation's mission and objectives; develop efficient and clear strategies and support plans for the achievement of the mission and objectives; identify critical success factors and critical processes; empower, i.e. encourage employees' participation in decision-making.

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