

### Quality management certification on Farms Machineries Market

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**Abstract.** This article presents the results of "The Main Actors On Farms Machineries Market Along The Supply Chain" study. The objectives of this study were to identify the quality management certification situation of the main actors and to identify the firms who give those certifications and to what extent the farms machineries market actors are present on the virtual market. Also the study wants to show out how the firms mentioned above can be identified on the virtual market: if they have a web site, email address, mobile phone that can be available online.

**Key words:** quality management, virtual market, farm machinerie market, certification.

**Introduction.** The article presents a short study made recently about the Romanian farms machinery market with focus on tractors market and quality management certification market. The scope of the research was to create as complete as possible a database with 100 firms present on the farms machinery market. The database contains information like address, object of activity, phone number, email address, web site. Also in this article we are trying to present the situation of the Romania quality management certification in the agricultural field and the importance of the supply chain' actors relationships.

**Materials and Methods.** For this article we have used first basis data and we used office excel to obtain the graphics. The data are taken from official sites of Romanian firms which provide quality management certification. These data for the presented database were collected from about 500 different websites in order to provide correct and up to date information.

**Farms Machinery Market in Romania.** According to Inse and Eurostat in Romania, from the total number of farms, approximately 70% are of semi subsistence, use a small land area and have a low degree of technology.

According to the EU, the settlements, in order to provide competitive products farms, must implement a quality management system. These settlements rise a big question: how a Romanian farm can afford to implement a quality management system?

There are various ways to resolve the problem; one of them is European funds.

Why is the certification necessary? The studies show out that the cost of poor quality is much higher than the cost of quality management system implementation and certification.

I personally want to give you a short example. Câmpeni, my birth place, has about 7900 inhabitants and according to [www.listaфирme.com](http://www.listaфирme.com) it has about 200 companies, of which two have website and only one is a company providing internet services. None of them have a quality management certificate. My question is: "Is there interest in evolution if a business does not use the today technologies in their activities?"

Next, we will present the main actors of the Romanian quality management certification market and agricultural machinery market.

After consulting several classical and virtual libraries, quality management consultants and after accessing online databases we have reached the following conclusions:

- ❖ There are a range number of companies which provide quality management system certification
- ❖ There are a range number of farms but only a few of them have obtained a quality management system certification
- ❖ Approximately 70% of farms are of semi-subsistence
- ❖ Not all the Romanian farms are included in a complex database, up to date. For instance, if someone wants to find out if a farm has email address, or mobile phone number, he or she must consult at least 10 different web pages to obtain the information
- ❖ Information available on the specialty e-papers is not always up to date. One of the reasons is that laws and standards change very often. For instance in November 2008 the quality management standards changed, but the Romanian market farms have time till 2011 to change their certificate so most of them have other priorities.
- ❖ Most of the specialists from agricultural machinery field like manufactures and distributors complain about the lack of information.

**Quality Management Bodies.** Legislation in this area is developed especially by the International Organization for Standardization which is the world's largest developer and publisher of International Standards (Costea 2009). It is an organization which - since 1947 - develops voluntary technical standards applied in almost all industries, technology and business. International Organization for Standardization has developed models for quality management systems by introducing quality standards ISO 9000, among which introduced standards for food safety (ISO 22000), environmental management (ISO 14001) etc.

In Romania the specialised bodies act on the private management market. The quality standardisation is conducted by: RENAR (the national accreditation of Romania); ASRO (Romanian Association for Standardization), Romanian Association for Quality, Romanian Foundation for Quality Promotion, Accredited laboratories Association, National Register of Auditors ([www.regielive.ro](http://www.regielive.ro)).

**Agricultural Machinery Market.** The objective was to create a database with at least 100 firms, to use it in our research activity (author's PhD thesis). We had begun with fair „Agraria”, 2009 attendance from where we have collected lots of leaflets, brochures, flyers. The next step was to visit the sites noted onto them for the purpose to identify companies selling tractors either importing them or producing, and to approach them in a quality chain vision. The final objectives are to measure the chain dimension and if the rules regarding product quality are followed, if there is a quality management system implemented in the organization and if the user handles the engine in accordance with instructions. The next steps will be to create a questionnaire, apply it to the firms included in the database and interpret the results with specialised software.

From the first stage of research flows:

- ❖ The report 1 to 5: to enter a firm in our database we have consulted five different websites
- ❖ The information is present in superficial way
- ❖ Most of the consulted websites did not help us to find the complete information about all the companies included in the database.
- ❖ From 101 companies existing in the database:
  - 62.37% have a mobile phone number available
  - 63.33% have an active web address
  - 78.21% have email address
  - 98% have phone numbers available

- ❖ There is a growing interest for the e-market but it still feels the need of a higher level of involvement from every actor and a much more rigour in data classification.
- ❖ An alarming fact, is the presence of 2% firms not registered in trade register
- ❖ The trade register provides economic data for business activities one year later so it is hard to measure the degree of bankruptcies or the reasons that made a business to renounce to their website
- ❖ www.listafirme.ro website provides data for all the Romanian companies. The information is complex but large number of farms cannot afford a subscription to the listafirme database
- ❖ A cheaper alternative is www.profilefirme.com which allows free access to almost all the data but the problems are the information is not as complete as it is on listafirme and doesn't function all the time.

In order to help Romanian farms to work more efficiently, it would be appropriate to create a Romanian farms portal that would have the next characteristics:

- ❖ would be easy way to handle
- ❖ up to day
- ❖ would have complex information
- ❖ it would provide useful advices to farmers
- ❖ help support for those who want to create their own web site
- ❖ have an online television
- ❖ forum
- ❖ 24/7 provide specialised information.

### **Quality Management System Certification for the Agricultural Machinery Market.**

Besides analyzing the web presence we also made a market analysis. We have chosen the most important RENAR certificated companies in charge with quality standardization. After we have consulted the existing databases on their web pages (they contain for about 10,000 companies), we have obtained the following data:

- ❖ AEROQ: the total number of certificates issued only 0.5% are for food and beverages and tobacco and 2.3% for machinery and equipment.
- ❖ AFER, another quality management certification firm provides information only on charge.
- ❖ CERTIND. According to the data existing on their website, from 2244 issued certificates, less than 60 are for agricultural machineries and transporting food and farming, i.e. less than 3% certificates goes in the agricultural field.
- ❖ CERTROM, another RENAR quality management certificated firm does not provide such information, not even on charge.
- ❖ EXPERT AUDIT GROUP has a portfolio with almost 3,700 customers but they do not publish the full list of them.
- ❖ ROMANIAN MOVEMENT FOR QUALITY is a firm with approximately 240 certificated issued. From 240 quality management systems certifications less than 10 (less than 4.5%) are for farm machineries and equipment, marketing firms and transporting food and farms.
- ❖ MOODY INTERNATIONAL CLIENTS has a client list available only on request
- ❖ QUALITAS page list of firms is not available.
- ❖ QUALITY CERT less than 10 out of 140 companies (7.15%) are from farm machineries and equipment field, marketing firms and transporting food and farms.

The reduced number of certificated companies from the agricultural machineries market and the data earlier exposed indicates:

- ❖ Low interest

- ❖ Absence of involvement
- ❖ Low standards
- ❖ Low budget
- ❖ Poor quality in information.

To improve the situation, it will be appropriate to have a supply quality management certification.

### **The Quality Management System Throughout the Whole Supply Chain.**

Each company can be seen both as a supplier and as a customer. Companies are aware that in order to meet the consumers' needs they have to observe them. They have to make the commitment of providing quality services and always to provide the access to their resources. But, in the same time, they must receive the same from their suppliers. Obviously, there must be a partnership between all stakeholders along the supply chain.

For a business, in order to provide a qualitative product/service it is required to have good qualitative material, services, ingredients etc and available in useful time. For this to take place, each one must assume its role in providing only good qualitative product/service and to provide them as soon as possible, if possible since yesterday. For this to happen it is important to companies to try, as hard as possible, to reduce the number of suppliers in order to have a much higher influence onto them and also a direct influence (Russell & Taylor 2009)

Another good measure taken in being more competitive and present into the market, is improving the quality and requiring to the suppliers to have implemented the same quality management system or as alternative to incorporate the supplier in their quality management system. Close collaboration with suppliers is useful for at least four reasons.

1. for the development and to design new products in the shortest possible time and with higher reliability;
2. the quality level of a product depends on the quality of the materials and purchased components;
3. customer's satisfaction factors (Q - Quality, C - cost, D - delivery (deliver), F - reliability) are not sufficient to characterize a supplier. The capacities of its technological innovation and continuous improvement are also important.
4. the collaboration between customers, suppliers and the producer is defined by maximum collaboration in a long-term relationship, based on mutual trust of the total, to ensure a full dynamic satisfaction effect to the customers.

Every one can improve their activity by obtaining the three most important requirements when they select the subcontractor or the supplier:

- the quality of the product;
- proper assurance of the quality system;
- good leadership.

**Conclusions.** Romanian agriculture has a lot of potential and it can be one of the biggest powers in Europe, but we have problems like those mentioned above, absence of knowledge, technology or information. In order to improve the sectors activity, we have indicated in the text ways to resolve some of the major problems identified by us. The solutions costs could be reduced with the help of farmer's involvement and participation.

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