

QUALITY MANAGEMENT

- Ana Estima, Judite Manso, Carmina S. Nunes, *Service Quality in Marketing. LAC – A Suggested Tool for Evaluation and Continuous Improvement*

This paper provides an insight relating with service quality, satisfied customers and organization benefits. Continuous improvement in service delivery is a goal that all organizations have to pursue as a way to eliminate gaps and satisfy their customers by providing the best possible service experience. The purpose of our paper is to recall the concept of services quality, then to present a certification service, a pioneer in Portugal and to present an evaluation and continuous improvement tool called the Customer-Friendly Service (Loja Amiga do Cliente – LAC), describing it through the four attributes contained in this certification. The contribution of this paper is the development of an integrated framework in order to analyze the LAC importance on service quality taking into account the advantages both from customers' perspective and organizations sight.

Keywords: correlations' model, interconnected model, LAC, service quality.

- Doina Popescu, *Social Responsibility and Business Ethics III Company Actions and Social Responsiveness*

The article presents a diagnostic model that can serve as a general framework for managers to use in terms of the company's long-term social responsiveness.

Also, there are presented various aspects of social responsibility that lead to reactive or proactive responses of the company.

The article provides examples of socially responsible companies that choose proactive responses, as part of their company's strategy.

Keywords: social responsiveness, ethical responsibilities, discretionary responsibilities, Groupe Renault, BRD.

- Ozlem Senvar, *EWMA Control Charts with Intelligent Systems*

EWMA control charts are based on the intuitive idea of accumulating information over the time by exponentially discounted weighting of the observations and hence these charts are known to be relatively effective in detecting small to moderate sized shifts in the mean. The inspiration of this study is to present an overview of the EWMA control charting technique suitable for detecting intrusions in quality management. EWMA control charts with intelligent systems are reviewed. Future directions are provided considering recent developments for EWMA control charts.

Keywords: EWMA Control Charts, Average Run Length (ARL), Multivariate EWMA (MEWMA) Control Charts, Intelligent Systems, Fuzzy Logic.

- Elena S. Balashova, Elizaveta A. Gromova, *TQM as one of the Drivers of Russian Industrial Sector*

In recent times, turbulent economic development is the characteristic of the world community. Since the end of 2014, Russia is in deep crisis. This difficult situation contributes to the dynamic development of the management concepts. In conditions of extremely high competition to survive, companies are able to respond quickly to the changes in the external environment. Lean production is one of the effective modern management models, which is based on the quality. Total quality management is a method by which management and employees can become involved in the continuous improvement of the production of goods and services. Russian industry was analyzed in the context of using such management tool as total quality management. About 12.5% of the analyzed industrial enterprises are actively implementing total quality management. Two of the 85 studied enterprises attract special attention in terms of quality management. There are Russian leading companies: PJSC "AVTOVAZ" and PJSC

"TMK". The particular implementation of the total quality management in the Russian industrial sector is shown by the example of these two companies. Their success is a private result for the Russian industry. The introduction of the total quality management is a necessary measure on the way to the transformation of the Russian management system and it is accelerator for achieving high performance indicators.

Keywords: Total Quality Management (TQM), Lean Production, quality, Russian industry, competitiveness, management tools.

- Alexander Khatsenko, Alexander Gugelev, Galina Mashentseva, Zinaida Kostina, *Statistical Analysis of the Problems related to Centralization of Quality Management at Russian Enterprises*

The main purpose of this study is to analyze the problems related to centralization of quality management in Russian enterprises through the cluster analysis of the incompliances identified during the audits. Non-repeating random sampling of the enterprises of the high technology character was conducted. The requirements of the main functions of quality management were grouped. Cluster analysis of groups of incompliances identified during audits for compliance with quality standards 2011 and 2015 was made. It allows you to visually consider the status of quality management in dynamics and indicates the change in target science-driven business in Russia: from the obligation to execute orders to centralizing own strategy.

Today according to the evaluation of incompliances, the low level of documentation and standardization of processes of quality management as the coordination of interests of the company, market participants, and compliance with certain state authorities' regulations quality of specific products (services) are the leading causes behind the failure in the development of quality management systems of enterprises. Modification of the above reasons into the task on improving the system of quality management should become one of priority directions of the state management in the real sector of the Russian economy.

Keywords: quality, cluster analysis, non-compliance, centralization, enterprises.

- Lakshman Singh, Alpana Srivastava, Smita Singh, *Roll of Corporate Sector & Industries in Corporate Social Responsibility for Disaster Management*

Disasters are unforeseen events that cause great damage, destruction and human suffering. Though often caused by nature, disasters can have human origins. It requires immediate, coordinated and effective response by multiple government, voluntary and private sector organizations to meet human needs and speed recovery. Corporate Social Responsibility (CSR) of corporate sector can play a pioneering role in leading and supporting the community in disaster management activities and in mobilizing human and financial resources as well as materials for utilization during a disaster situation.

This paper had point out that disaster made loss of manmade and natural capital causes sudden disinvestments; post disaster relief increases both the financial and administrative burden on government. Disasters cause major setbacks to the economic and social development of developing countries, very often inflicting massive casualties and diverting funding aimed at development goals to the delivery of relief. Paper had summarised that corporate sector has the potential for strengthening and promoting its own safety and protection against catastrophes as well as in assisting the community at large in reducing its vulnerability. And discuss the various phases of disaster management which are: Prevention, Mitigation, Preparedness, Response and relief, Rehabilitation. The CSR initiatives seem to have been adequately dealt with by industry practices like benchmarking, CSR ratings and certification by different agencies.

Paper had discussed the roll of Corporate Sectors/Companies/Industries in disaster Management under the head of CSR & analyse our methodology by Applied Probability. This analysis says that if services at disaster affected area facilitate by one particular company or industry then it will less effective in comparison to group of company or industry which are working in different business ($P_{\text{Group}} > P_{\text{Single}}$). Paper had discussed the benefits of Disaster Management CSR for a Organisation/Company & its impact on them. Also point out the importance and its relevance in present scenario.

Finally discussed the limitations for implementation of Disaster Management through

CSR. And conclude with some future direction for Disaster Management via CSR & key steps to implement CSR in Disaster Management successfully.

Keywords: Corporate Social Responsibility, disinvestments, rehabilitation, applied probability, positive marketing, brand building.

- Viorel Alexandru Turcu, *Analyzing the Opportunity, Knowledge and Development of Performance Indicators Specific to the Reverse Logistics Process from the Perspective of the Quality-Risk Management*

Organizational performance evaluation is also based on the analysis of the manner of fulfilment of indicators specific to the different activities performed within processes. One aspect which must be considered for the future is the new demands of the vision "thinking based on risk" according to standards SR ISO 31000:2010, SR EN ISO 9001:2015. In these circumstances, one may provide a more complex development of organizational processes approaches, given the new requirements and opportunities that arise in the organization.

Keywords: PDCA cycle, risk, quality-risk management, operational indicators.

- Guldana Amangeldiyevna Kuanalieva, Oleg Yakovlevich Kravets, Olga Yuryevna Zaslavskaya, Nurmaganbet Ermek Talantuly, *Modeling and Algorithmization of the Operational Quality Control in the Multilevel Education System*

The paper presents the concept of probabilistic quality control over the students being educated in the multilevel education system based on the assumption on the presence of some stable level (probability) of obtaining of the correct results of education. The setting of the optimization model of the objective of the operational control over the students being educated in the multilevel education system, based on the probabilistic control concept, was formulated. The feature of this setting is its multilevel nature and the possibility of accounting of the effectiveness of the impact on the quality of education. The presentation of the education system as a conveyor system ensures the possibility of individual impact on the components of the education process depending on the priority for each predetermined time period. Using the probabilistic concept of quality control over the students being educated in the multilevel education system ensures the focus of the impact of the control system to provide the maximum effect at fixed resources or the defined effect at the minimal resources.

Keywords: multilevel education system, quality control, probabilistic concept, optimizational objective, presentation as a conveyor.

- Mikhail Nikolaevich Dudin, Oksana Vladimirovna Sertakova, Evgenia Evgenevna Frolova, Mikhail Ilych Katsarskiy, Natalia Andreevna Voykova, *Methodological Approaches to Examination of Public Health based on the "National Health Quality Indicator" Model*

This article examines major methodological approaches to assessment of public health and to calculation of indicators describing the impact of specific factors on the state and quality of the nation's health. The method for calculating the National Health Quality Indicator (NHQI) was suggested as a scientific novelty, which incorporates three qualitative groups of parameters (quality of life, quality of healthcare, and quality of society). The method involves large-scale formula-methodological tools, which allow to conduct a comparative-differential analysis of the dynamics of the National Health Quality Indicator between countries and regions. The following conclusions have been obtained based on the materials presented in the article:

□ It has been justified that public health is a key resource that ensures shaping of a national labor potential and intellectual capital required for a sustainable and environmentally responsible socio-economic development. Qualitative indicators of public health determine the maturity of the national economy and the social sector;

□ The World Health Organization conducts monitoring of global public health; it is objectively obvious that the structure and morbidity of the global public has changed significantly: somatic (diabetes) and psychosomatic disorders (neurosis, depression) dominate, along with new infectious diseases (HIV/AIDS);

□ A modified method was proposed for analyzing the quality of public health in a certain country or region, which includes three groups of evaluative dimensions and is supplemented by tools for comparative-differential analysis between countries and regions in the form of the "National Health Quality Indicator" model; and

□ The method was tested by the example of three associations of countries grouped on economic grounds: BRICS countries, leading member states of the European Union (EU-15), the USA and Canada, which form a CUSFTA partnership. The data resulting from the analysis confirm the empirical thesis of this article and also suggest that qualitative indicators of public health are largely determined by the quality and dynamics of the socio-economic development of countries and regions.

Keywords: public, health, method, Global burden of disease, WHO, BRICS, USA, Canada, European Union, socio-economic development, birth rate, mortality, morbidity.

- Y.I. Palagin, Y.E. Horoshavtsev, A.L. Starichenkov, A.P. Ushakov, V. N. Pisarenko, *Aircraft Technical Operation Quality Management*

The paper describes a method of aircraft technical operation quality management. The method is based on the measuring of errors made by maintenance personnel during the aircraft operation, the modelling of the aircraft condition change under the effect of low-quality maintenance and technical malfunctions, statistical processing, determination of the probability of the aircraft serviceable condition, analysis of trends and control activity effect on the technical operation.

Keywords: human factor, aircraft, technical maintenance, errors, quality, management.

- Vladimir Tatarintsev, Sergey Anatoljevich Solyanik, Oleg Yakovlevich Kravets, Khrapylina Lubov, *Improvement of Methodology of End-to-End Integrated Management of Quality of Metrological Activities in Geographically Distributed Systems of Ensuring the Uniformity of Measurements*

The article examines the place of metrological activities in geographical systems of ensuring the uniformity of measurements in terms of integrated quality management. Quality of metrological activities is a complex multidimensional object of management, where the tasks of obtaining an objective assessment of its efficiency belong to the class of poorly formalized tasks described by the availability of various kinds of uncertainties, vague limitations, incomplete and fuzzy data.

The objective of the article is to develop a methodology of end-to-end integrated management of quality of metrological activities in geographical systems of ensuring the uniformity of measurements that function under various kinds of uncertainties, vague limitations, incomplete and fuzzy data.

A conceptual model and methodology of systemic quality management were proposed, aimed at improving the efficiency of functioning of the geographical system of ensuring the uniformity of measurements within five main target subsystems "Metrological activities", "Market", "Finance", and "Resources".

A hierarchical model was developed, as well as a method of assessing the systemic management of quality of geographical system of ensuring the uniformity of measurement and its structural formations using balanced scorecard and theory of fuzzy sets, which allow to obtain an adequate assessment under uncertainties, vague limitations, incomplete and fuzzy data.

A hierarchical model of fuzzy inference was developed, as well as a method of assessing the efficiency of the systemic management of quality of metrological activities of the geographical center of standardization, metrology and testing as a structural object of the geographical system of ensuring the uniformity of measurements. This model is notable for ability of multi-level calculation of efficiency by several levels of the system: process → group of processes → quality management system, which allows to improve rapidness and objectivity of managerial decision-making in the field of systemic quality management.

Keywords: quality management system, metrological activities, ensuring the uniformity of measurements, distributed system, fuzzy inference model, method of efficiency assessment.

- Bucur Iulian Dediu, Liliana Mihaela Moga, Mihaela Neculita, *Quality in the Public Administration Management*

This paper analyses the trends in the public administration, which are based the public reforms, and conducted to the new public management development and implementation. The characteristics of New Public Management are identified and described. In accordance with the New Public Management is introduced the concept of quality and are discussed the modalities of its implementation in the public administration in the European Union countries and in Romania.

Keywords: new public management, quality, Total Quality Management, public administration.

FOOD SAFETY MANAGEMENT

- Maria Carla Valentino, *The Bottled Water Industry: Monopoly and Competitiveness*

In this century the water problem is worrying and alarming worldwide, and this is caused by over-exploitation of man that uses more than 50% for domestic use. Exacerbating the situation is the pollution caused by the companies, climate change and the excessive use in agriculture for irrigation. In this scenario take advantage big companies that are buying groundwater basins and aquifers to acquire a monopoly and to sell at high prices according to market rules. These giants, along with the financial institutions and states, hope for a water privatization because it could guarantee the modernization of a high-gain sector. The inclusion of big companies is leading to a water dictatorship and to attribute it the definition of Blue Gold. Various bodies have engaged in trying viable solutions and to make concrete actions, and they are also joined by some companies interested in preserving the indispensable resource. The case shows how, in addition to being the dominant company in the world for the production of packaged water, it is very attentive to the water issue and it is actively involved in raising awareness and to disseminate the concept of sustainable use of the same.

Keywords: big companies, blue gold, exploitation, internationalization, management, privatization.

- Francesco Zecca, Natalia Rastorgueva, *Knowledge Management and Sustainable Agriculture: The Italian Case*

The contemporary knowledge-based economy requires global usage of information in all aspects of modern society. Pertinent information is an important asset for successful business, therefore an application of knowledge management in organisational practice has become a crucial factor for the viability and sustainable development of enterprises. This is particularly relevant for the agricultural context, which needs modern practices for enhancement and development.

However, information and knowledge, due to their intangible character, seem difficult to manage and organize. Therefore the paper targeted at developing sustainable organizational model of knowledge management for small and medium enterprises. Italian agriculture is considered as a context for this study, and knowledge management was offered as a tool for facilitating agricultural performance and increasing competitiveness of agricultural sector.

A wide concept of knowledge management and specified agricultural context require a theory-based approach to research and a survey. Thus, the research methodology includes the next four parts. The first one contains literature review and examines definitions, strategies, approaches and models of sustainable knowledge management. The second part includes content analysis of 105 scientific publications. The third part of methodology is based on the results of the two previous parts and includes creating the model of knowledge management. Verification of this model is the last part of the research. Verification was executed through on-line questionnaire distributed to Italian agricultural enterprises throughout the country on their intentions and awareness towards knowledge management and developed model of knowledge management.

The results of the survey have demonstrated farmer's incentives to implement the developed knowledge management model with flexible approach in its organisation.

Keywords: knowledge management, sustainability, agriculture, dissemination.

- Maurizio Lanfranchi, Carlo Giannetto, *Economic Analysis of Food Waste in the Catering Activity: Results of a Survey Conducted in South Italy*

The issue of food waste is currently submitted to the attention of national and supranational institutions for its ethical and environmental implications. It is estimated that every year in the world food waste amounts to around 1.5 tons, equal to a third of the overall food production intended for human consumption. The present work focused on the analysis of the phenomenon of the food waste generated by the catering sector in some cities of southern Italy. The carried out research aimed at investigating the restaurateur's behaviour concerning the food raw materials'supply methods and frequency, the inventory management capacity, the environmental sensitivity, and the culture of waste reduction. The analysis allowed to identify the most wasted food product groups as well as the main causes that generate waste. The detection technique used was the administration of an on-line questionnaire, specially prepared according to the research objective, that was uploaded on the Google Forms platform of docs.google.

Keywords: food waste, catering sector, restaurateur's behavior, environmental implications, food production.

- Liliana Mihaela Moga, *The Traceability System for Fish and Fishery Products based on the Requirements of the Actors Involved in the Supply Chain*

This paper presents comprehensive information about the information flow of a traceability system for the fish and fishery products integrated in the food supply chain. The traceability is used like a tool to assist the participants in the supply chain in the assurance of food safety and quality and to achieve the consumer confidence. It is provided a traceability system developed in accordance with the European and national legislation and the needs of all the actors involved in the supply chain for fish and fishery products and the consumers.

Keywords: traceability system, fish and fishery products, national legislation, European legislation, consumer, needs of the actors involved in the supply chain.

INFORMATION SECURITY MANAGEMENT

- Max North, Ronny Richardson, Ashanta Abron, Saurabh Gupta, *A Concise Review of the Emergence of Big Data and Plausible Trends*

Exponentially growing data storage capacity, along with increasing computing power and affordability of information processing, has fueled the rise of Big Data and a remarkable potential for harnessing the power of information. The capability of organizations to analyze large data sets has become a key factor for competitiveness, innovation and growth. This article will deliver a concise overview of Big Data and the technologies which support its use in industry. We initially provide a comprehensive definition and surveying its sources of origin. Subsequently, a few selected technologies and techniques utilized to handle Big Data are explored. Finally, we briefly review plausible solutions for current challenges experienced in processing large amounts of data quickly and efficiently.

Keywords: Big Data, Relational Database Management Systems, NoSQL Databases.

GENERAL MANAGEMENT

- Azam Jamalizadeh, Shahryar Sorooshian, *Merits of Industrial Clustering: Case of Date's Industry of Iran*

Significance of industrial development made many countries consider the formation and strengthening of small and medium industries of industrial fields, in form of cluster as regional industrial development strategy, and utilize it as employment strategy which is able to improve competition abilities of enterprises and so to enhance their export potentials. Above 90 percent of Iran industries are formed by small and medium enterprises, and based on identified properties of industrial clusters in different regions, cluster development is one of the appropriate and effective patterns for business expansion. Considering the importance of date production in Iran, can be said that development of date industrial cluster has a lot of positive impacts in economic, industrial, social and environmental fields. In this study, by using the technique of

DEMATEL, 7 major effective criteria on operation of date industrial cluster including 4 operational features, and 3 sufficiency features were recognized and extracted under supervision of the experts and based on the most practical choices which are compatible with the environment of practical structures of industrial clusters. Results of this research show that networking feature has its priority among practical criteria, export feature includes a high influence taking rate, and feature of cluster enterprises has the most effectiveness and interaction with the other studied criteria. This study indicates that using partnership and networking approach is one of the appropriate ways to solve problems of clusters and is operational for other local and regional clusters.

Keywords: industrial cluster, performance, date industry, small and medium enterprises, DEMATEL.