



RISK MANAGEMENT IN ELECTRICITY INDUSTRY - INITIATING CHANGE MANAGEMENT AND KEY SUCCESS FACTORS

Voronca Simona Louise, CN Transelectrica SA, Romania

Abstract

Implementing enterprise risk management (ERM) is a change management challenge in most companies. We structured the paper around three broad categories of questions: How should we get started and what are the main sources of resistance to ERM implementation? What are the key success factors during implementation? How can the most common pitfalls be avoided?

The main steps in building risk management system are summarized based on the recorded experience of European electricity companies, which are at various stages of implementation, focusing on quantifying risk and risk indicators.

The paper is aimed to present, in this context, Transelectrica's ongoing process of a systematic and comprehensive definition of the critic risks and of quantifying their impact with the view of implementing an integrated program, to minimize and control the risks and to set the appropriate strategies on treating, preserving, transferring and recovery procedures meant to protect the values of the company.

THE MAIN DESIGN PRINCIPLES FOR EFFECTIVE RISK GOVERNANCE AND CONTROL - GUIDELINES FOR INCREMENTAL AND ITERATIVE IMPLEMENTATION

Voronca Simona Louise, CN Transelectrica SA, Romania

Abstract

The paper presents the major organisational components of Enterprise risk management (ERM) that together aim to raise the level of risk management effectiveness across the organization. These organizational components cover: Risk management processes – including risk identification and prioritization, risk strategy, and governance and control, Elements of organizational structure, Tools, methodologies, and systems and Skills. Managing the risks effectively is not only a fiduciary duty of executives and boards, it has also become key to value creation.

As a particular case, the paper presents Transelectrica – the Romanian Electricity Transport and System Operator that develops and implements an integrated program - Enterprise Risk Management Program, that effectively integrates the risks across the entire Company, allowing tailoring imaginative and cost-effective options for risk reduction and risk transfer, in order to minimize and control the critical risks and to determine the strategies on processing, maintaining, transferring, recovering and restoring the Company's assets with the view of their being protected.

PROCESSES PATH IN A ROMANIAN ELECTRICITY DISTRIBUTION COMPANY

Valentina PERSIDEANU, Politehnica University of Bucharest, Faculty of Entrepreneurship, Business Engineering and Management

Industrial Management Chair, e-mail: vpersid@yahoo.com

Octavian Ion NEGOIȚĂ, Politehnica University of Bucharest, Faculty of Entrepreneurship, Business Engineering and Management

Industrial Management Chair, e-mail: octav.negoita@gmail.com

Alexandra Cornelia STERIU, S.C. Amerilex S.R.L., Bucharest

e-mail: alexandra.steriu@amerilex.ro

Abstract

Using the observation method, the authors aims to detail the defining steps of the processes in a Romanian electricity distribution company: identifying, documenting, monitoring, measuring and improving. This paper is based on a study case developed in a Romanian company and highlights the path of the processes: the logical flow charts for monitoring and measuring the processes, responsibilities, documents, records, planning of the process indicators, categories of the identified processes, etc. The paper is useful to the distribution companies' top management, the quality assurance specialists and the specialist preoccupied by analyzing the management of an electricity distribution company.

Key Words: process, electricity, distribution company, flow chart



THE RELATIONSHIP BETWEEN R&D EXPENDITURES AND COMPANY PERFORMANCE: AN EXPLORATORY STUDY

Gheorghe MILITARU, Politehnica University of Bucharest, Romania

Abstract

This paper focuses on R&D expenditures and company performance. The major objective of this paper is to identify the impact of R&D expenditures on company performance. Many companies would like to be able correlate R&D expenditure with profitability. Based on extensive literature review, document analysis, Web research, and observation. This paper intends to address the following issues: where companies need to invest, which projects and technology to invest in, and when to stop spending money into a project that looks likely to fail but could yet deliver enormous profits. The findings of this paper provide a theoretical basis, and simultaneously can be used to analyse relationship between R&D expenditures and profitability. From management perspective, this paper identified several factors essential to improve activities of research and development from companies. R&D expenditure should be viewed as a long-term investment. However, it may even reduce short-term profitability

Key words: innovation, invention, research and development, strategy, investment

CONSIDERATIONS REGARDING THE ASSET MANAGEMENT INTO ELECTRICITY COMPANY

Andrușcă Mihai, Adam Maricel, Baraboi Adrian, Irimia Daniel, Cătălin Pancu, Pleșca Traian, "Gh. Asachi" Technical University of Iași, România,

Abstract

This paper presents the structure of the asset management system in an electricity company. Thus, it present the importance of introducing asset management in order to achieve the company objectives (maximizing the economic benefits and/or run without losses), the asset management activities, namely monitoring and diagnosis of electrical equipment, chosen maintenance strategy and risk management, and also the asset life cycle and the decisions about the asset life on the operation phase. According to information acquired from the AM activities it can make a decision about with the technical state of electrical equipment to a given moment. Thus, it is possible to have the following situation: repair after the fault, refurbishment, relocation, respectively replacement of the equipment.

THE COGENERATION IN CEMENT INDUSTRY

dr.ing. Pribeanu Adriana-Grațîela – CEPROCIM S.A. – ROMÂNIA

Abstract

The energetic costs represents an important proportion by total production costs at the cement. The cement industry makes the important efforts for the reduction of the energetical consumptions. In the conditions of the free energetical market and the new restrictions of environment, in general cogeneration and the cogeneration by medium and small power, in special, represents the solutions recommends by European Community. The cogeneration represents one of the economical "technology by reduction" of the gases emissions with greenhouse effect, the the roll recognizes by the European Union, together by the utilization of regenerable energy. The importance of the approach presented in this paper lies in the increase of energetic efficiency simultaneously with the reducing of the impact on the environment in the cement industry.

VALUE CONVERSION OF INTANGIBLES - VALUE NETWORK ANALYSIS MODEL

Ipate Dragos Mihai, "SPIRU HARET" University Bucharest, Romania

Abstract

The objective of this paper is to emphasize the process of knowledge management within organizations and the impact of intangible assets investment on share market value. Value network analysis offers a way to model, analyze, evaluate, and improve the capability of a business to convert both tangible and intangible assets into other forms of negotiable value. In this paper we show Value Network Analysis from Romanian Software Company and Value conversion of intangible assets into market value.

The roots of this analysis lie in the principles of value-added accounting and value chain analysis. Every point along the value chain, one should add value to the product or service. In value network terms, this means that when a role receives a value input, ideally the people playing that role would find ways to use that input to provide greater value in the form of products and services. Value creation analysis is applied on study case of Romanian Software Company.



THE BLACK-SCHOLES-MERTON RISK MODEL AND THE FINANCIAL MARKETS

Cristina Lascu, Ph.D., Romanian Television Broadcasting Corporation, Romania

Abstract

The paper presents the Black-Scholes-Merton model, a mathematical description of financial markets. Created by Fischer Black, Myron Scholes and Robert Merton (the last two scientists shared the 1997 Nobel Prize in Economic Sciences), its solution is widely used in the pricing of European-style options. The author shows, also, the limits of this model, reflected by the boom of the China economy in the last eight years and by the case of Long-Term Capital Management, a hedge fund management firm based in Greenwich, Connecticut, which failed spectacularly in the late 1990s, leading to a massive bailout by other major financial institutions, which was supervised by the Federal Reserve.

METHODS OF THREATS ASSESSMENT APPLIED FOR MANAGING NPP CRITICAL INFRASTRUCTURE

Lecturer Cristina Petronela Simion, Ph.D. candidate, University "Politehnica" of Bucharest, Romania

Professor Adrian Gheorghe, Ph.D., Old Dominion University, USA

Lecturer Cristian-Aurelian Popescu, Ph.D., University "Politehnica" of Bucharest, Romania

Abstract

Major threats are malicious, ie those intentionally created by man. These threats, subject to case study in this paper, are analyzed from the perspective of security - as opposed to the normal and abnormal threats which are analyzed in terms of functionality and safety. Giving the growing number of threats, the key for critical infrastructures management to find appropriate protection strategies is the understanding and knowledge of the capabilities of these threats. The large variety of threats makes important the accurate description that will enable their correct classification. The approach of this paper is to move the center of gravity from the threat itself to the enemy posing the threat. The purpose is to compare the most common methods of assessing the threats faced by critical infrastructure and finding a method that provides a comprehensive approach to threat management.

NEUROGENESIS CONCEPT APPLICABLE TO HIGH PERFORMANCE MANAGEMENT OF INTEGRATED ENERGY SYSTEMS

Corneliu Sofronie, Perfect Service București

Răzvan Cîrîcă, S.C. CREARE Resurse Umane S.R.L., România

R. Zubcov, Perfect Service București

Cecilia Gostin, C.N.S. Cartel ALFA, România

Mihai Popper, Universitatea Transilvania Brașov

Abstract

The new aspects of the neurogenetical concept are presented in the following significant steps. Neural networks, genetic algorithms, fuzzy systems, here are just a few of the notions that not a long time ago seemed rather taken out of a science fiction novel, not from a scientific publication. Nevertheless, nowadays both university researchers and from the large companies currently use such technologies in a sustained endeavor for the integration of the artificial intelligence elements into concrete projects. Although there was no accepted general definition of artificial neuronal networks, most researchers agree that these represent the simple processing element assemblages, interconnected through communication channels through which numerical information spreads.

Key words: The psychic universe engineering resorting to human resource quality modelling based on the archemo-system quantum psychology, Neurogenetical programming modelling resorting to building the quantum and superquantum decisions, conclusions, references.



BUSINESS ENGINEERING AND REENGINEERING MODELLED IN THE NEUROGENETICALLY ASSISTED ARCHEMO – SYSTEMIC CONCEPT

Răzvan Ciriță, S.C. CREARE Resurse Umane S.R.L., București, România
Gabriel Popper, Societatea Perfect Service București, România
Anca Alexandra Purcărea, Universitatea Politehnica București
Cecilia Costin, Societatea CREARE, București, România
Cosmin Curea, Universitatea Politehnica București, România

Abstract

In the paper we develop the following problems: the concept of the engineering and reengineering of the integrated business processes, the industrial processes development in the Hammer-Champy concept by constituting and applying the operational research models by constituting and applying the operational research models, applications of the industrial reengineering in energy business, conclusions, references. The computer-assisted industrial systems models can be categorized into quantitative models (Belleman, Pontreaghin, Cost – present value), quantitative models (Laplace and Y Transformed and Leapunov – Thorn functions), statistical and dynamic models, determined and probabilistic models, optimization stimulation models. Below we present a few of the basic models:
Key words: business process, reengineering concept

DESIGN MANAGEMENT OF ENERGY SYSTEMS IN INDUSTRIAL REENGINEERING APPROACH BY OPERATIONAL RESEARCH

Ioan Dan Gheorghiu, Institutul de Studii și Proiectări Energetice, România
Constantin Bălașoiu, Complexul Energetic Craiova, România
Laurențiu Popper, Universitatea Politehnica București, România
Cosmin Curea, Universitatea Politehnica București, România
Cecilia Gostin, C.N.S. Cartel ALFA, România

Abstract

The new problems of the renewal of the technological-managerial objectives of the National Power System are the following: efficient management trends and indicators applicable to evolving energy corporations, the power systems operational research modelling, based on the entrepreneurial concept, neuro-expert informatics, the foundation of the national power system integration within the digital economy, interconnected power systems management, conclusions, references.
Key Words: operational research, corporate management

ECONOMIC-FINANCIAL ENGINEERING OF CORPORATIONS UNDER DEVELOPMENT IN A GLOBAL DIGITAL ECONOMY

Costache Bogdan-Mihai, Universitatea Politehnica București, România
Cecilia Gostin, C.N.S. Cartel ALFA, România
Răzvan Ciriță, S.C. CREARE Resurs Umane S.R.L., România
Gabriel Popper, Universitatea Politehnica București, România
Laurențiu Popper, Universitatea Politehnica București, România

Abstract

The problems approached circumscribe the following reference within the digital economies submitted to globalization. Current economy or digital economy is driven by modern information and new technologies, which offer to organizations or to the public access to almost any type of information, regardless of its form of existence, storage type or geographical location. These tools encourage the development of new activities, services and products. All developed countries have issued and implemented government policies supporting: the evolution and the adoption of new technology, the national information infrastructure consolidation, the training and the attraction of new technology experts, the adult education, and the cooperation with the private sector to encourage investment in this new economic branch, and promoting government projects to demonstrate the benefits for the current society services.
Key words: the structure and perspective of the globalized digital economy, the economic-financial engineering of the corporations submitted to development in a globalized economy, globalized economy structure optimizing models in the archemo-system concept, conclusions, references.