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Synergy, Solution for Efficiency

The articles contained in this issue of the FAIMA Journal are intended to show that the manager has yet also another role in the organization. It is known that a manager is to be efficient. Efficiency is a philosophical concept. One aspect of efficiency is technical yield that has to be subunitary. Economic efficiency is desired to be greater than one. This can be explained by the fact that there are not taken into account all the efforts, and the resources considered are not evaluated to their true value. But there is also a third explanation, which consists in the way that managers lead activities to create synergy.

In nature there are phenomena that lead to increased effects, which are analyzed by the synergistic science. The explanation for this phenomenon consists of the way it makes the transition from one state to another. Initially a structure can be in disorder. But introducing energy in disorganized structures, they self-organize, and another state appears.

To get a higher effect, the systems must start from a simple structure, then energy is inserted, and thus self-organization occurs, leading to superior effect. Simple initial structures are obtained by the organization, and it is necessary that the existing structures are simplified. A specific element is that the system is self-organized, as if an „invisible hand” would intervene. This would be achieved when there is a perfect link between the effects obtained, and the efforts. In addition, the system must have feedback relationships that give robustness of the effect.

The issues adjacent to synergistic behaviors that were only partially resolved by now are the problem of cooperation, the problem of complexity, and the self-organization problem. Philosophers have found for some time the importance of cooperation. Pursuing personal interest does not lead to success, because social actors do not fully control the actions that can satisfy their interests. So an actor needs to consider the social system, where partners can be found. Synergy in a system is linked to its complexity, given by the number of elements of the system and the relationships between them. A complex system has properties that can not be explained by studying its components. Small actions, but with great resonance greatly influences systems, especially in bifurcation points. It was also observed the ability of complex systems of self-organizing.

Coming together
is a beginning.
Keeping together
is progress. Working
together is success.
(Henry Ford)

As a result of self-organization a new structure emerges, without being imposed by an external agent. It is as if there is an intelligent force in charge of the organization. Organizations have certain features necessary to achieve synergy. They are open systems, non-linear, complex, dynamic, and they are composed of subsystems that must work together to achieve the organization's goals. Synergy can be achieved in various ways, but especially through cooperation and by the creation of strategic systems. Companies combine external collaboration with internal collaboration to minimize costs, hence resulting externalizing or internalizing activities. Internal cooperation imposes definition of an „internal market" where internal customers and internal suppliers act. Internal cooperation requires organization. Synergy was taken into account when theorized division of physical labor and division of intellectual labor.

H. Simon, one of the first researchers of synergy found that synergy is also given by the number of hierarchical levels. Given the specialization of labor, the pyramid structures occurred. But to achieve self-organization, organizations should have circular structures, spiral structure (such as sunflower formation, the model of morphogenesis, cyclones etc.), or honeycomb structures. If there is a greater autonomy of people, then the self-organization occurs.

The strategies developed depend on the desired type of economy. There can be the economies of scale (quantity produced increases and tends to MES – minimum efficient scale); economies of time (learning effect reduces the execution time as experience curves); network economy (there is a cost reduction by combining expertise of network organizations); purpose economy (resources are used for many purposes). Synergy in strategy refers to the compatibility between individual strategies chosen.

Possible solutions to achieve synergy are teamwork and introduction of human energy into the organization. New structures pursued (honeycomb, spiral, etc.) can be carried by working in teams. The team members support each other, influence each other, they have same roles successively, and they help unconditionally. Energy is obtained by directing staff. This involves coaching, namely guiding subordinates for achieving specific tasks. Thus the operator becomes stronger professionally (empowerment). The second activity that creates energy is motivating. The role of motivation is to create operators' willingness to win.

A third way of creating energy lies in how it exercises command.

> *Synergy:*
> *The combined effect of individuals in collaboration that exceeds the sum of their individual effects.*
> (Stephen R. Covey)

Prof. Sorin Ionescu
Editor-in-Cief

SECURITY SOLUTIONS IN SOCIAL SYSTEMS

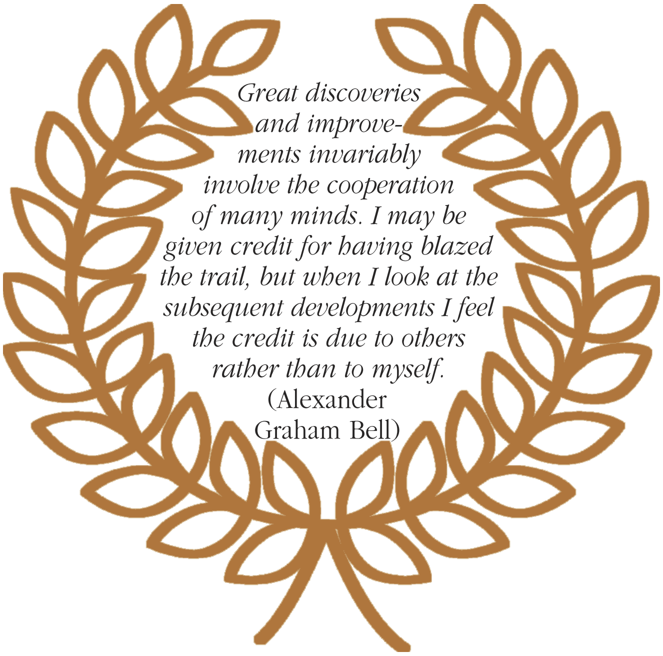
Bogdan Țigănoaia
Politehnica University of Bucharest, Romania

Abstract

This paper is a study regarding some security solutions and standards. Cryptographic, biometric and steganographic mechanisms and the practicability of them are described. The paper presents considerations regarding the applications of biometrics (biometric passport, access control), the systems based on digital fingerprint or signature, a steganographic system and a model for information security assurance in organizations designed and implemented by the author. Aspects regarding research in the field of steganography and steganalysis and ISO 27000 security standards are also the focus points of the paper.

Keywords: security, standards, solutions, steganography, biometrics

INTRODUCTION



> *Great discoveries and improvements invariably involve the cooperation of many minds. I may be given credit for having blazed the trail, but when I look at the subsequent developments I feel the credit is due to others rather than to myself.*
> (Alexander Graham Bell)

All over the world, security plays an important role. Mankind is today in front of a dynamic evolution where security assurance means power. According to EU policy, security assurance is one of the European priorities. The necessity of security assurance comes from the analysis of the actual international security medium which is in a continuously transformation. The September 11 attacks, the terrorist acts in the world, international military context, the fight against weapons of mass destruction etc. are the evidences that emphasize the importance of security in the world (adaptation [8]). The importance of the security solutions and standards in this

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field comes from the actual society, which is very dynamic: the evolution of the crimes; the evolution of the cyber-crime; security mechanisms as a consequence of the NATO entrance (in 2004) and Romanian adhesion to EU (in 2007); informational society, characterized by online transactions, virtual shops, e-commerce etc.; globalization phenomenon.

In this context, it is very important to know aspects regarding: the actual technologies, systems and mechanisms used for security assurance; the security risks, vulnerabilities and treats of informational systems; the actual international standards and settlements regarding security assurance; the ability to implement models for security assurance or to use secure systems.

This paper is a study regarding some security solutions and standards: biometric, steganographic and cryptographic mechanisms for security assurance, a steganographic system and a model for information security assurance in organizations designed and implemented by the author, ISO 27000 security standards etc.

1. Security Solutions and Their Practicability

1.1. Cryptographic mechanisms

A first mechanism to assure attributes of information security is cryptography. Certain techniques of coding data represent a secured way to protect the communication between two entities. Cryptography with secret or public keys is an example of data coding scheme.

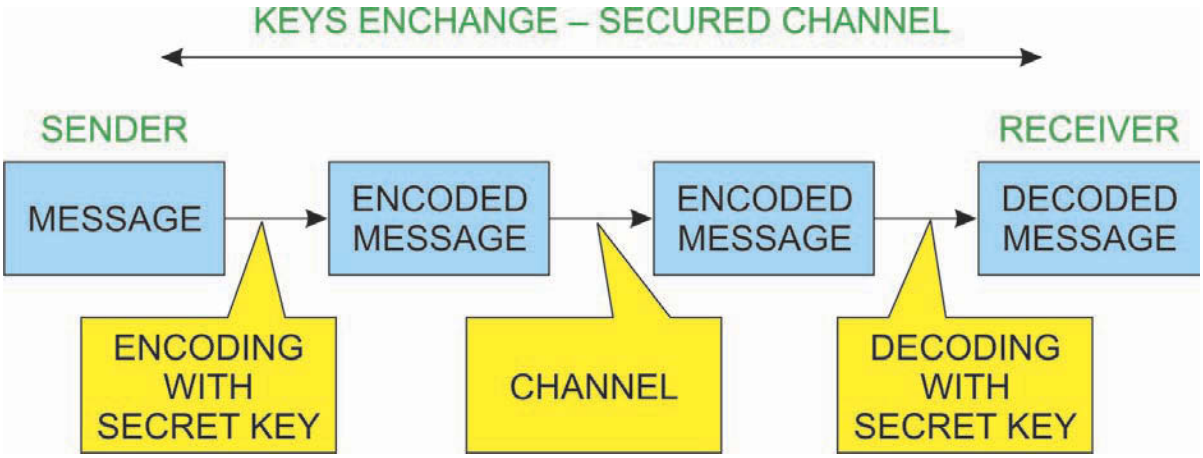


Figure 1 – *Encryption with secret keys*

Algorithms with secret keys (also called symmetric algorithms – Figure 1) are characterized by the use of the same key during the coding process as well as the decoding stage. They are based on traditional coding methods such as transposition and substitution. The key needs to be kept safe and should be known only by the sender and receiver. There is one big disadvantage regarding secret key algorithms and that is the fact that you need a secure channel between the sender and the receiver in order to transmit the key before the start of the coding process [1].

Asymmetric algorithms (encryption with public keys – Figure 2) are characterized by the fact that the coding process doesn't use the same key as in the decoding process. The private key must be secret, but the public key can be distributed publicly. In case of an asymmetric communication, every entity will have a pair of keys (private and public). The transmitter can code the message using the public key of the receiver, so that only the receiver can decode the message by using its private key. In case of an answer, the receiver will use the public key of the transmitter in order to code the message, so that only the transmitter can decode the message by using its private key. Asymmetric keys are obtained using a formula with large numbers, but the value of a key can not be detected from its twin key [1].

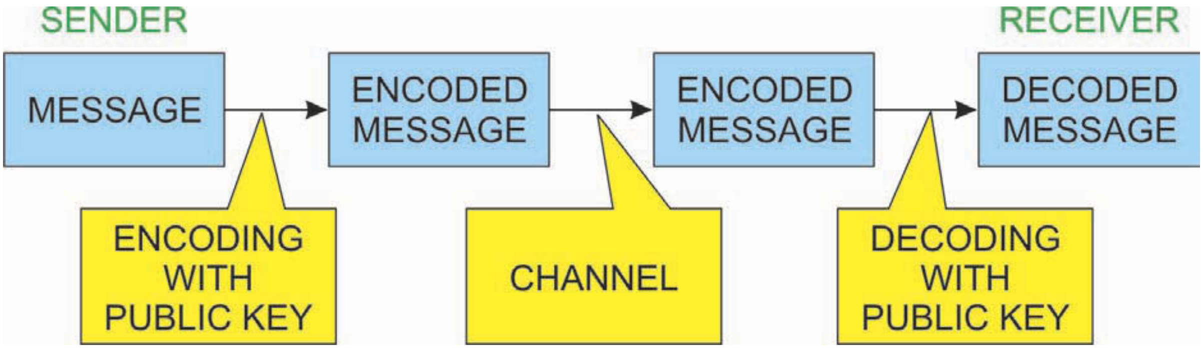


Figure 2 – *Encryption using asymmetric keys*

1.2. Biometric mechanisms

Biometrics (gr. *bios = life, metron = measure*) defines methods of unique recognition of a person based on one or more intrinsic features (fingerprints, retina and iris scans, the geometry of the hand and finger, vocal and facial recognition).

Biometric systems appear in the second half of the 20th century, at the same time as the rise of computerized systems. The field of biometrics recorded a boom in usage during the 90s and began to be used in everyday applications in the first decade of our century. The most frequently used biometric systems are: the digital fingerprint, retina, iris, face, voice scans and digital signature. There are two categories of biometric systems: static biometric systems – digital print, hand geometry, iris scan, face characteristics; dynamic biometric systems – voice, signature.

Biometric systems can also be classified as: systems with physiological characteristics – physiological characteristics are generally linked with body features: fingerprint, hand geometry, iris recognition, DNA etc; systems with behavioral biometric characteristics – behavioral characteristics are related to the behavior of the person: the way he walks, the voice etc.

Considerations on Systems Based on the Digital Fingerprint

The identification of a person using a digital fingerprint system is scientifically based on the properties of the papillary sketch: uniqueness and stability. The uniqueness of the papillary sketch was observed by scientists based on practical experience and studies made in this field. The scientists reach the conclusion that it is impossible to have two people with the same fingerprints, each finger having unique characteristics. We can mention the changes caused by age and certain diseases, but the shape (structure) of the papillary sketch remains the same (only the dimensions may change), which makes the digital fingerprint to be one of the most important methods of identifying people, used especially in the field of security [1]. The studies made by experts in the field of digital fingerprints and information technology have materialized in the creation of several biometric systems (known as A.F.I.S. – Automated Fingerprint Identification System). Today, these systems are in a continuous state of improvement and expansion on a global scale. The advantages of A.F.I.S. systems with an architecture that is modular and flexible come from practice and refer to [2]:

a) the automation of some operations during the process of analyzing the fingerprints (selection of data, comparing the fingerprints);
b) precision and flexibility (the analysis of millions of fingerprints/minute);
c) automated coding of any fingerprint;
d) direct reading of the fingerprint from the persons finger without the need for the classic finger scan;
e) the possibility of processing the image – the user can add, enhance, etc. Figures 3, 4 and 5 show the A.F.I.S. system [2].

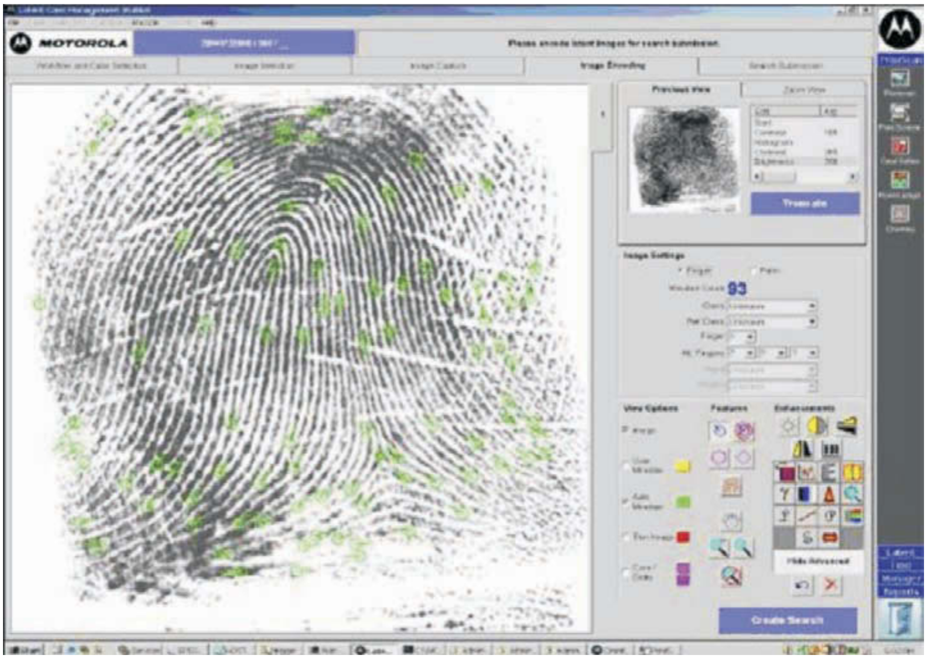


Figure 3 – *A finger mark coded with A.F.I.S.*

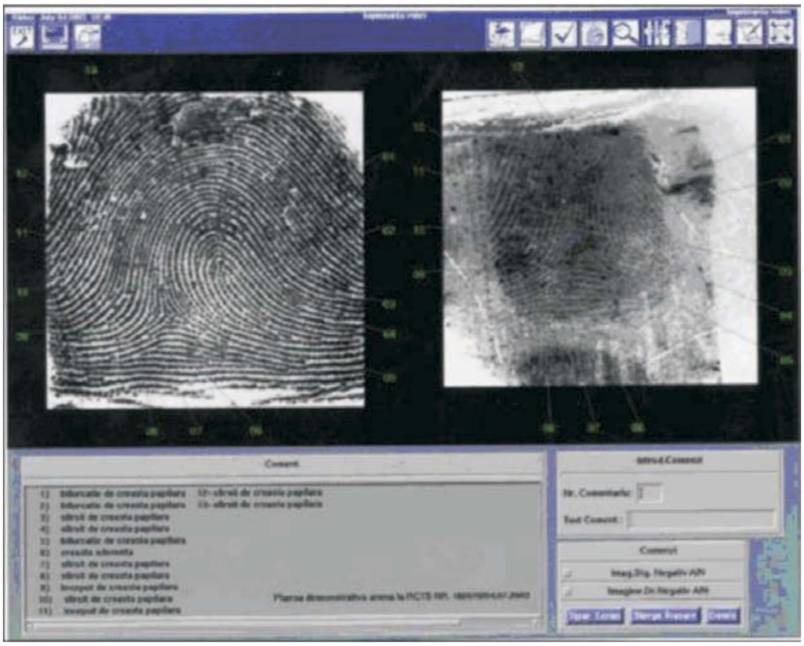


Figure 4 – *Demonstrative plate obtained with A.F.I.S.*

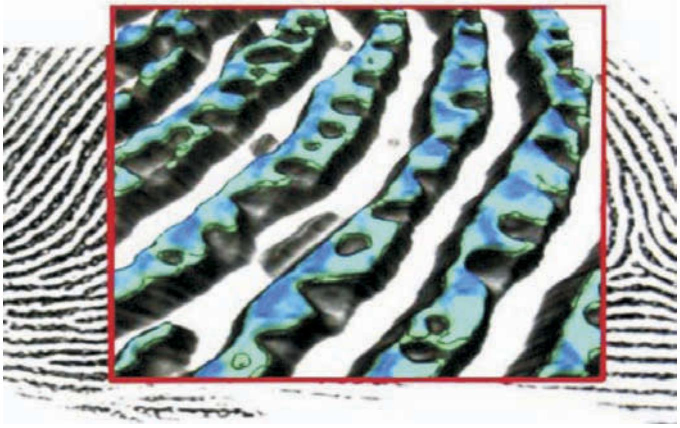


Figure 5 – *Demonstrative plate obtained using 3D technology*

Considerations Regarding Biometric Systems Based On The Digital Signature

The digital signature represents a digital form of the holographic signature. It refers to data attached to information in order to obtain security, has the same functionality and applicability and presents a high level of security. The main security attributes assured by the digital signature are the integrity of the data and the non-repudiation (there are no doubts regarding the identity of the person who signs). The advantages of digital signatures are:

1) by using the digital signature, the document can be made official even though the signer is at a great distance from the document;

2) non-repudiation is assured, meaning that the signer can't say he didn't sign the document;
3) integrity of data is assured, so that, any modification on the data causes a cancellation of the digital signature;

If we are referring to devices that create digital signatures, these can be either software applications or hardware devices properly configured. A device for creating digital signatures must have the following properties:

1) it must not allow the data used to create the electronic signature to be deduced;
2) it must not make any modification on the data that has to be signed;
3) it must have mechanisms for assuring the confidentiality of the data which the electronic signature was created with.

Applications of biometrics

Access control

The first use of biometrics is access control, the aim of such devices based on biometric elements is to monitor people. Biometric devices for access control combine security with comfort and are very widespread: in airports, inside companies or military institutions, banks, hospitals or even prisons.

The biometric passport

According to art.1 (2) from the European Regulation No. 2252/2004 [2], passports and traveling documents include memory support that contains a facial picture and digital storage support in operable formats. The data is secured and the storage support must have sufficient capacity to guarantee the integrity, authenticity and confidentiality of the data. The biometric elements from passports are used only to verify the authenticity of the document and the identity of the owner based on the comparable elements. In Figure 6 [2], some of the elements of the biometric passport are presented.

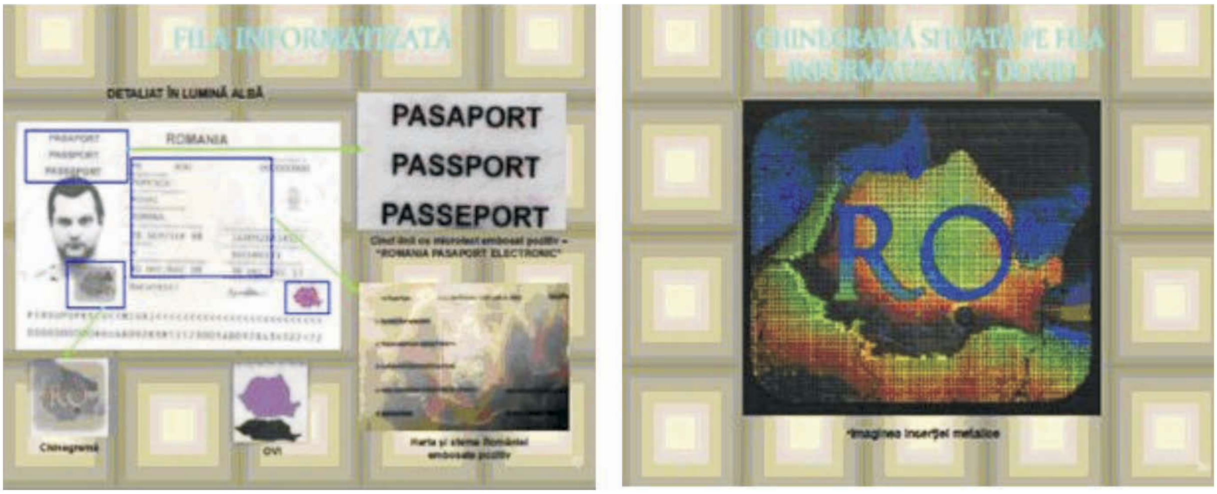

FILA INFORMATIZATĂ
DETALIAT ÎN LUMINĂ ALBĂ
ROMANIA
PASAPORT
PASSPORT
PASSEPORT
Chinegramă
OVI
Harta şi stema României embosate pozitiv
CHINEGRAMĂ SITUATĂ PE FILA INFORMATIZATĂ - DOVID
RO
Imaginea inserţiei metalice

Figure 6 – *Elements of the biometric passport*

1.3. Steganographic mechanisms

They are used in the fight with the plagiarists, in the field of copyright protection. A. Fabien defines steganography as the science of hiding secret messages so that nobody, except the sender and the receiver, can suspect the existence of a message – security through obscurity. Actual steganographic mechanisms can be grouped in three categories [3]: through injection – the secret data is hided in an cover data (image, sound etc); substitution – the secret data replaces a part of the source files, cover-data; by propagation – a software application is used; it has as input the data to be covered and it has as a result a text, image, video, audio etc. file that is created by the application based on the input data.

An example of a steganographic system implemented by the author on the CELL BE parallel architecture is detailed presented in [3] (the design, the implementation, the analysis of some security parameters etc), but the block diagram is shown in Figure 7. The steganographic system uses two entities for communication: an encoder to code the secret message and a decoder to extract it.

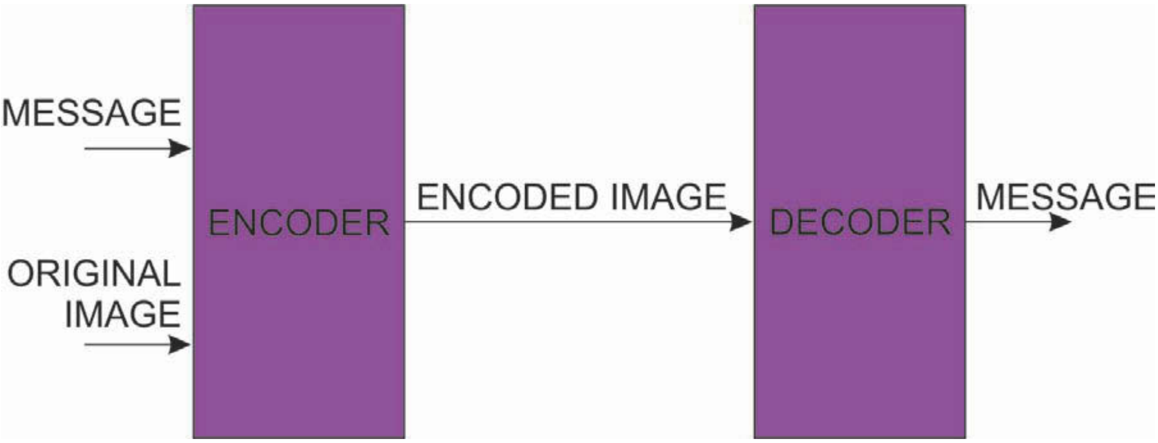


Figure 7 – *The block diagram with the steganographic system*

One of the examples used the image presented in Figure 8, where was hidden the secret message. There were no visual differences between the encoded and the original image (Figure 8 vs. Figure 9), but the first one contained the message.

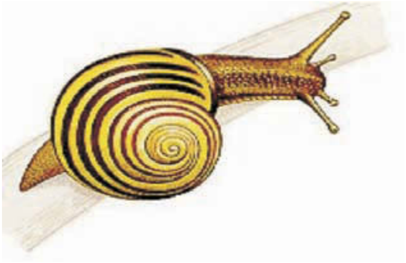


Figure 8 – *The encoded image*

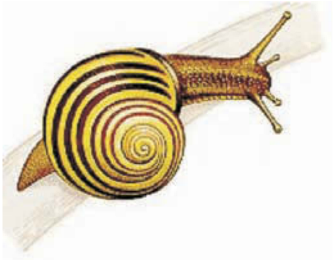


Figure 9 – *The original image*

2. A Model for Information Security Assurance in Organizations

An example of a solution designed and implemented by the author in an organization is detailed presented in [3] (the design, the implementation, a case study etc.), but the block diagram is shown in Figure 10.

The model is based on ISO 27001:2006 and ISO 17799:2005 and tries to bring together, through an original thinking, aspects regarding international standards in the field of information security. The model is not an exhaustive one (depending on the organization, other security measures might be implemented), it is suitable for organizations that have as objective the implementation and certification of an Information Security Management System according to international standards. The main advantage of the model is that it can be used for all types of organizations (including small, medium and large companies) [4].

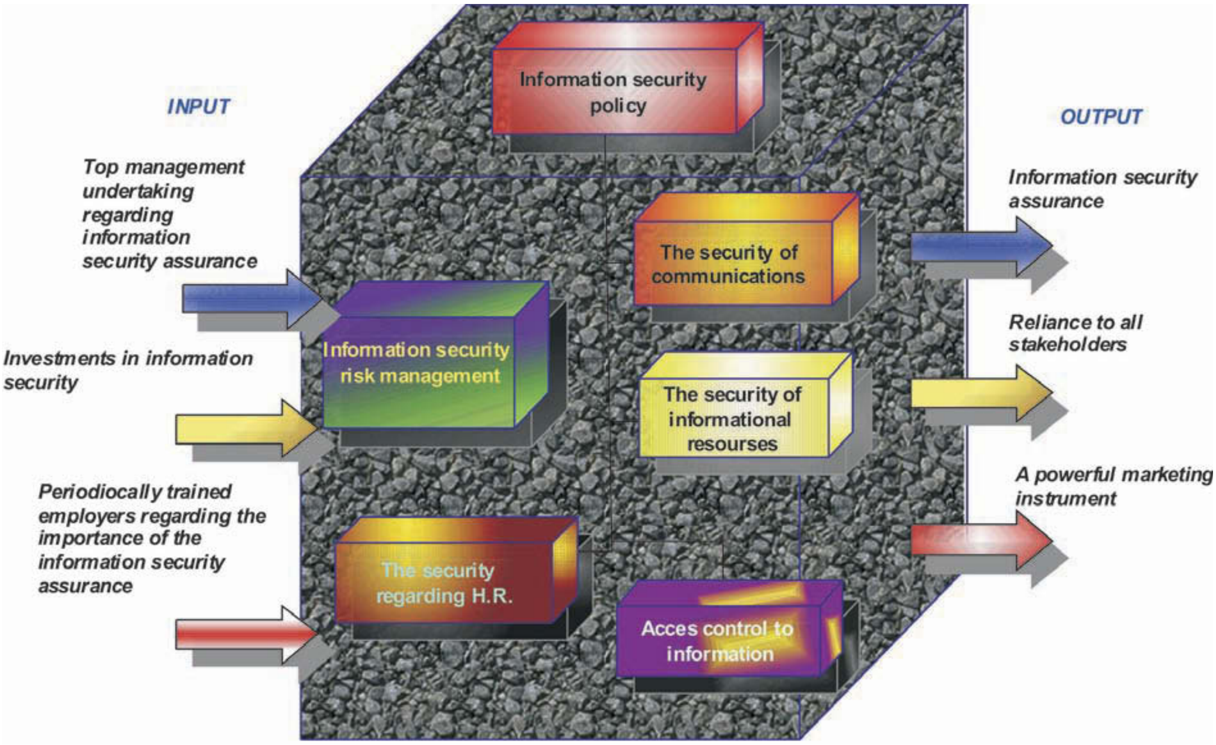

INPUT
Top management undertaking regarding information security assurance
Investments in information security
Periodically trained employers regarding the importance of the information security assurance
Information security policy
Information security risk management
The security regarding H.R.
The security of communications
The security of informational resourses
Acces control to information
OUTPUT
Information security assurance
Reliance to all stakeholders
A powerful marketing instrument

Figure 10 – *The model for information security assurance in organizations*

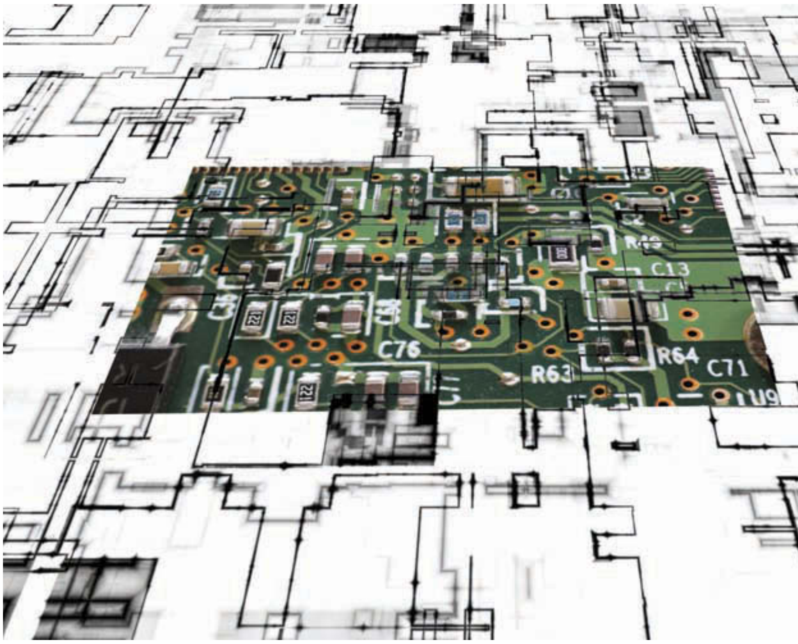
3. Some Aspects Regarding Research in the Field of Steganography and Steganalysis

This section presents some actual researches in the field of steganography and steganalysis.

Approach for parallel steganalisys based on data compression – the approach for parallel steganalisys is proposed for the detection of steganography manipulated computer files, based on data compression. The criteria for detecting the hidden secret information is proposed – the difference between the compression ratios of the empty and full containers. A parallel algorithm for steganalysis has been developed. The advantages of the developed approach through real experiments with the 32-core cluster computer system are shown [5], [6].

The realization of parallel stegoanalysis with a cluster system – the detection of steganography manipulated computer files requires the application of new methods of steganalysis or using parallel high-performance computer systems with the implementation of already known methods. A parallel algorithm for steganalysis based on the chi-square method has been developed and his diagram is presented. The advantages of the developed approach through real experiments with the 32-core cluster computer system are described in [5], [7].

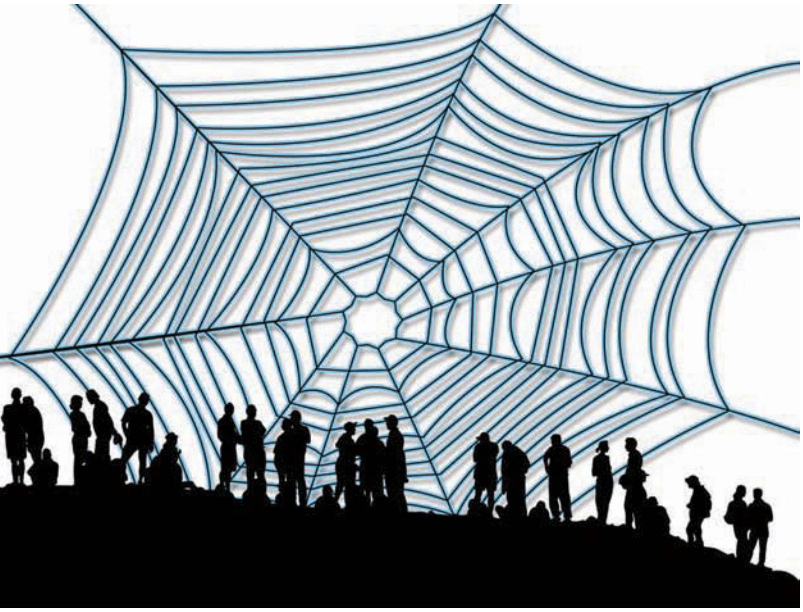
An approach for network steganography based on RDP protocol – the research presents an approach for creating a covert steganographic channel for transmitting textual information based on the RDP network protocol. The developed algorithm and software allow data transmission in a dialog mode between two users. The research shows that the speed of data transmission in the network environment, the performance of intermediaries and their number directly influence the throughput of the secret channel and its reliability in [7], [8].



Steganalytic software products – the research deals with the popular steganalytic software products, accessible through the Internet to help the law enforcement and intelligence/counter-intelligence computer forensics examiners when conducting an examination of the storage media. The purpose and main features of the most popular commercial products for steganalysis are shown. The results of comparing the features of the most popular programs through coefficients of determination are marked in [7], [8].

On the efficiency of steganographic software – the report suggested indicators of effectiveness of steganographic software. More than 2,000 tests are presented in [9].

Semantic mapping of scientific terms in English and Russian languages in computer steganography – an attempt is made to



define and analyze the semantic equivalence of the basic terms in the new scientific field – staganography in Russian and English, to help professionals and students, using the information sources and writing scientific papers. More than 20 terms are defined. The paper could be used as a beginning of creating dictionary and thesaurus of the terms in this scientific field [10];

Steganographic methods in network layer of the OSI model – the research deals with the options of using stego-methods by protocols at network level for forming covert data transmission channels. Some characteristics of these channels have been proposed. Directions for protection of network steganographic methods leaks have been pointed out [11].

Conclusions

Security plays a major role all over the world. The necessity of security assurance comes from the analysis of the actual international security medium which is very dynamic and in a continuously transformation. In this context, it is a priority to study some solutions for security assurance such as: cryptographic mechanisms; biometric mechanisms and their practicability (biometric passport, A.F.I.S. and access control using biometric tools); steganographic mechanisms; steganographic systems and models for information security assurance in organizations.

Software programs for security assurance – the most popular software solutions for security assurance are: antivirus programs; firewalls programs; anti-spyware programs; security suites. As regards security standards, the standards from ISO 27000 family are the most popular in the field of security assurance [12].

It is also very important security solutions and aspects regarding research in the field of steganography and steganalysis and ISO 27000 security standards to be well-known.

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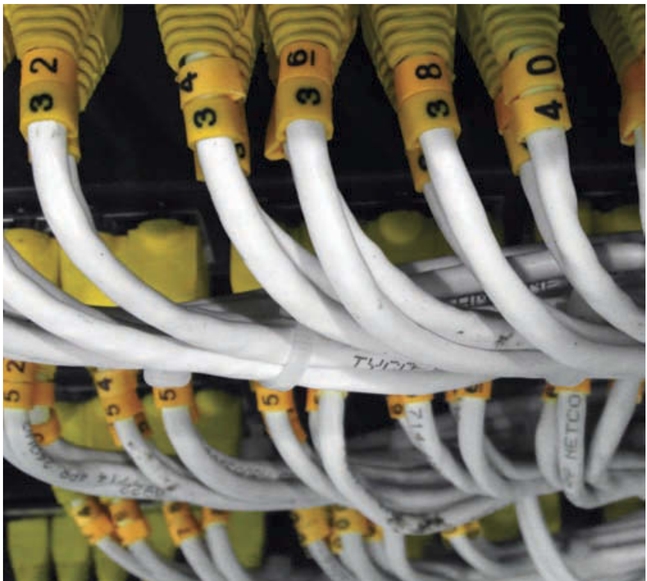

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POSSIBILITIES AND LIMITS OF FORESIGHT

Rolf Becks

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Abstract

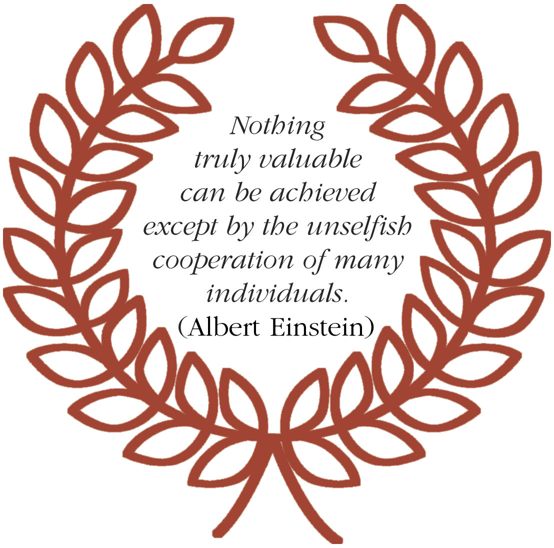
Social systems need to make decisions in order to be capable of action. Whether a decision is good or bad depends largely on the quality of the future-related information which can be used during the decision-making process. This essential information for the planning and decision-making process is the main task of the future research. For the process of decision-preparation, two types of future-related statements are relevant: the positivistic forecast and the normative projections. Future research propagates not a passive acceptance of future conditions; the results of the future research mean especially a call to action. Future can be created and needs to be created.

Keywords: information, decision-making process, positivistic forecast, normative projections, future research

FUTURE RESEARCH AND PLANNING

In order to be capable of action, the social systems need to make decisions. Decisions, as basis of every conscious action, can be either improvised or scheduled.

The larger the scope of a decision, the greater the responsibility of the decision maker is. And the bigger the responsibility of the decision-maker for his act or omission, the more important is to prepare by planning the upcoming decision. Planning, a process which is upstream of the decision includes: **(1)** identifying current and future problem areas, **(2)** setting goals, **(3)** determining the current and future scope for action, **(4)** putting up the alternatives for action (i.e. objectives of systems), **(5)** the estimation of the probable consequences of each alternative and **(6)** the assessing



Nothing truly valuable can be achieved except by the unselfish cooperation of many individuals.
(Albert Einstein)

of the alternatives in terms of their likely consequences.

This six planning steps lead – in the decision for one alternative (from the perspective of the planner: the best one) as well as – in the practical implementation of the decision.

At all stages of the planning process outlined here, there is a lot of information to process regarding the future. A full action plan is basically oriented to the near or distant future. „Gouverner c'est prévoir", says a French proverb. And Sun Tzu, the master of strategic thinking, states: „The reason why wise ruler and a good captain beat the enemy wherever he may be, and why their performance exceed the deeds of ordinary people, is the knowledge in advance" [1]. The more precise our notions of future states and processes are, the more we can act responsibly. Whether a decision is good or bad depends largely on the quality of the future-related information which can be used during the decision-making process. This essential information for the planning and decision-making process is the main task of the future research.

Under this science of future research, named also futurology or Futures' Research, it can be understood all systematic efforts aimed to obtain information about the future of nature and culture. The systematic collection and processing of future-related information is a multidisciplinary and interdisciplinary effort. Future research is therefore in the service of planning.

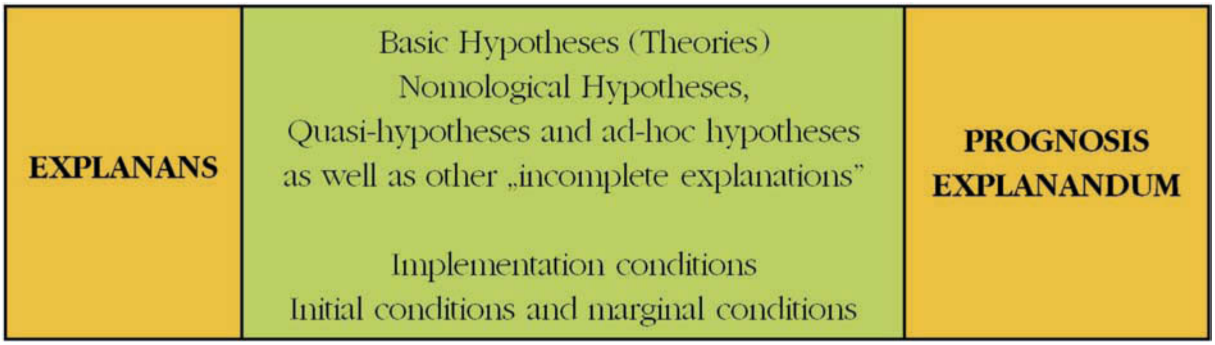
For the process of decision-preparation, two types of future-related statements are relevant: **a)** the positivistic forecast, **b)** the normative projections. The analysis of this paper begins with the positivistic forecast, the hard core of the future research. „Thus, it is foreknowledge that enables a brilliant ruler and an excellent leader to triumph over others wherever they move, while producing useful achievements for the numerous" [1].

1. Positivistic Prognosis

Positivistic prognoses are declarations sustained by arguments about what will happen probably under certain circumstances. Positivistic prognoses provide answers to the question „What will it be, if...?" The decision maker needs reliable answers to this question in order to: detect in due time the economical and social challenges (i.e. configuration tasks), define early the alternatives and develop in due time the action alternatives for the upcoming problems.

Thus, the positivistic prognosis functions as it were a social radar system which announces the chances to be offered as well. Depending on how far the prediction extends in the future, one differentiates between short, middle and long term prognoses.

The prediction of a singular (i.e. of a spatially and temporally defined) event is derived from at least a substantial hypothesis as well as an appropriate description of the application conditions of the events to be predicted (Figure 1):



EXPLANANS	Basic Hypotheses (Theories) Nomological Hypotheses, Quasi-hypotheses and ad-hoc hypotheses as well as other „incomplete explanations" Implementation conditions Initial conditions and marginal conditions	**PROGNOSIS** **EXPLANANDUM**

Figure 1 – *Positivistic Prognosis – The deductive prognosis model (Hempel/Oppenheim)*

In case of hypotheses on which the researcher of the future bases his predictions, it is about nomological hypotheses, quasi-hypotheses and *ad hoc* hypotheses and other incomplete explanations.

Nomological hypotheses are general statements on the nature of reality. They are not subject to any spatial or temporal limitation, are to be worded as conditional sentences (as „if-then-statements") and are explained enough on an empirical manner. Nomological hypotheses affirm that under certain circumstances certain effects appear always and everywhere [2]. For the explanation and the prognosis of the processes in the realm of the inanimate nature, we can rely on the empirical well consolidated hypotheses in form of the so called natural laws.

Regarding the behavior of the social systems, there cannot be issued generally valid statements. Therefore, in the explanation and the prediction of decisions and actions of people and groups of people, we need to resort to less reliable basic assumptions, i.e. to quasi-hypotheses and *ad hoc* hypotheses.

Quasi-hypotheses are to a certain degree robust statements whose validity extends on a defined time segment, to a defined culture area and to a defined group of people [3]. As an example, there is reference to different macroeconomic consumption functions. We possess no consumption function which is valid everywhere and at any time. Using the „tailor-made" functions, we can explain the customer behaviors for certain national economies, to a certain degree and during a certain period of time.

In case of *ad hoc* hypotheses and other incomplete statements, certain experiences and tendency statements are generalized. Thus, we assume that along with growing taxes the amplitude of illegal economy grows too. The coming into force of the legalities phrased in the hypotheses is related to certain conditions, service conditions. In case of service conditions it is on one hand about the initial conditions, and on the other hand about marginal conditions of the events to be predicted.

The initial conditions mark the initial position of a system, respectively the triggering moments of an event. The marginal conditions (respectively the minor details) characterize those influences which go out from the environment to the system or to the event. The description of the service conditions takes place in form of singular statements.

The prognosis which is derived from the present hypothesis/hypotheses and the service conditions has also a singular character. The quality of a prognosis depends on: how sure its underlying hypotheses are, and how reliable our knowledge of the service conditions is. But these two components of a prediction prove themselves to be only conditionally resilient.

Real economy hypotheses, the argumentation basis of each rationally based prognosis, are not verifiable. In the case of each hypothesis, it exists the possibility that some time in the future it will fail in experience. A hypothesis which by the present has not been refuted by strong enough falsification attempts possesses only the status of a temporarily „proved" statement. The hitherto existing confirmation of a hypothesis is just no proof for its certainty respectively its truthfulness [4]. Since the hypotheses used for the explanation of the reality can never be valid, certain respectively true, the predictions derived from them bear always the stain of uncertainty.

We assume that hypotheses which have not been rocked in the numerous endurance tests offer a reliable basis for

predictions as hypotheses with a minor degree of proving capacity. Thus, if hypotheses can be used for prediction goals, all their service conditions must be known at the moment of the drawing up of the prediction.

As a rule, the service conditions are not stable in time (not constant in time flow); so they must be themselves predicted again, with the aid of the appropriate hypotheses and their service conditions. The prediction of the service conditions of the second prognosis phase conditions the knowledge of future service conditions, and so it leads to an endless regress (Figure 2):

Step 3: Basic Hypotheses
⇒ Prognosis ⇒ Prognosis
Implementation conditions

Step 2: Basic Hypotheses
⇒ Prognosis ⇒ Prognosis
Implementation conditions

Step 1: Basic Hypotheses
⇒ Prognosis ⇒ Prognosis
Implementation conditions

Figure 2 – *Positivistic prognosis – The endless regress*

„This infinite regress could be disrupted only in the so called „closed systems", as it is obtainable reliable enough for example in experience situations of natural science. In social sciences such systems cannot be presumed and also not constructed" [5].

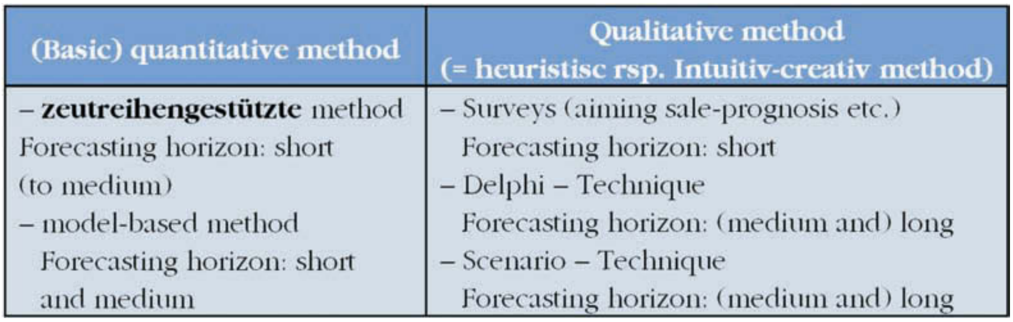
Since the endless regress cannot be practically performed, it is avoided usually in every day predictions, so that the multistage process of prediction of service conditions is simply abandoned after the first stage, or the *ad hoc* hypotheses regarding the validity of the service conditions are prepared during the prediction, or the service conditions are interpreted as dimensions which can be manipulated through our action. The avoidance of the endless regresses with help of avoidance maneuvers leads however to the situation in which they are taken as basis for the most disputable assumptions concerning the predictions to be made.

The more distant a prediction is from the present, the bigger is the risk that the premises which are taken as basis for the prediction lapse and that new influence forces which were not considered in the basic approach of the prediction which influence the event to be predicted, appear. The explanations about the deflection of prediction from hypotheses and service conditions make clear the limits which result from the positivistic prediction.

The disillusioning conclusions which is to be derived from the methodological considerations are as follows: all the justified statements about future situations and developments are more or less uncertain; the reliability of predictions decreases with the expansion of the period of prediction.

The ways the future researcher goes in order to provide the planner and decision maker with somehow valid information about the future is presented below. The researcher of the future can rely on an important number of tested methods in order to obtain reliable statements about future circumstances.

The equipment of the prediction makers can be divided in two categories: on one hand the large range of quantitative methods, on the other hand the substantial package of heuristic prediction techniques (Figure 3):



(Basic) quantitative method	Qualitative method (= heuristisc rsp. Intuitiv-creativ method)
– **zeutreihengestützte** method Forecasting horizon: short (to medium) – model-based method Forecasting horizon: short and medium	– Surveys (aiming sale-prognosis etc.) Forecasting horizon: short – Delphi – Technique Forecasting horizon: (medium and) long – Scenario – Technique Forecasting horizon: (medium and) long

Figure 3 – *Positivistic Prognosis; Forecasting's Taxonomy*

The quantitative methods are used primarily in the short and middle term prediction. The heuristic methods are marked through the fact that the theoretical findings, practical experiences and also the intuition of specialists are used directly in the derivation of predictions. The store of knowledge which a specialist has obtained in his life until present serves the researcher of the future who works in heuristic methods as the decisive basis of his predictions.

From the comprehensive instrumental repertoire of the researcher of the future three methods are presented as examples within this contribution: the „naive" extrapolating of the trend line, the Delphi technique and the scenario technique.

1.1. The „naive" extrapolating of the trend line

Mark Twain affirmed „If I want to do as those important scholars who intend to prove that they know what took place in the distant past or what will happen in the distant future, I would have the best opportunity here!...". One should notice: In the space of one hundred and seventy-six years, the Lower Mississippi has shortened itself two hundred and forty-two miles. That is an average of one mile and a third per year. Therefore, any calm person, who is not blind or idiotic, can see that in the Old Oolitic Silurian Period, just a million years ago next November, the Lower Mississippi River was upwards of one million three hundred thousand miles long, and stuck out over the Gulf of Mexico like a fishing-rod. And by the same token any person can see that seven hundred and forty-two years from now the Lower Mississippi will be only a mile and three-quarters long, and Cairo and New Orleans will have joined their streets together, and be plodding comfortably along under a single mayor and a mutual board of aldermen. There is something fascinating about science. One gets such wholesale returns of conjecture out of such a trifling investment of fact [6].

The „naive" extrapolating of the trend line which is to be assigned to the quantitative prediction is a frequently practiced method because of its simple use. In its case, a prediction concept without research of the causes, is about the fact that data from the past belonging to a time series lead to a future situation through their present final point, provided that a clear pattern is to be detected. The extrapolation of historical data takes place under the assumption that the temporal development of a process traces back to the effects of certain laws, and that these laws determine in the future the course of the time series. The exact laws are not researched in the „naive" extrapolating of the trend line. It is simply assumed that every value of the time series embodies the result of all the influences that have become effective in this moment. The time factor serves representatively to the description of the „dominant tendency" [7].

The questionableness of these assumptions is obvious; the use of the „naive" extrapolating of the trend line is therefore defensible only within the short term planning and prediction. The main problem of trend lengthener consists in the finding

of the mathematical function which to a certain degree matches the data of the past and moreover it is also plausible [8]. Through the use of future moments in the assessed trend function, one can read then the desired prediction values.

1.2. The Delphi Technique

The Delphi Technique is a special form of the iterative research. Developed toward the end of the fifties by Olaf Helmer and his collaborators at RAND Corporation [9], it became quick a very significant instrument for long term forecast. The Delphi study published by the RAND researchers Olaf Helmer and Theodore Gordon in 1964 regarding science, automation, aerospace, weapons systems and demography is considered a significant pioneering-work in the field of forecasting [10].

Important examples for the application of the Delphi technique in Germany are:

- the two researches carried out by the Fraunhofer Institute for Systems and Innovation Research on behalf of the Federal Ministry for Education, Science, Research and Technology (BMBF), aiming to develop the science and technology, named after the years of their appearance as „Delphi'93" [11] and „Delphi'98" [12], as well as
- the Delphi survey conducted in 1996 – 1998 on behalf of the BMBF (Federal Ministry for Education, Science, Research and Technology) on „potential and dimensions of the scientific society, its impact on educational processes and educational structures" [13], its first part („Wissensdelphi") being realized by Prognos AG and its second part („Bildungsdelphi") being realized by a research institute.

1.3. The Scenario-Technique

The Scenario Technique is a matter of determining plausible alternative lines of development of a system within the scope of an intellectual game. One builds scenarios from the draughts derived from alternative acceptances of future structures, procedures and organization forms of the system to be examined. Exploring possible future states and activities of a system occurs in several working steps.

The first step is to define the job, to describe very precisely the object of the investigation in his present situation, and to fix the time horizon for the scenarios.

The second working step serves for identifying the relevant forces (the key factors) from which the future development of the system to be examined decisively depends on, and for determining the interaction between the single forces with the help of an interdependence analysis.

The (real) forecast work is to be performed in the third program segment. For every key factor there are statements to be met, as it will presumably develop in future in view of his size and direction. Some active forces show unequivocal development trends; so they develop, and do not change. Thus, for example, all signs point to the fact that the globalization of the economy progresses further and that the shortening of the product life cycles continues. With factors whose future is uncertain, alternative acceptances are to be compiled concerning their other way. The undebated ones, as well as the alternative statements for the development of the relevant active forces are to be founded carefully.

The aim of the fourth working phase is to check the acceptances grieved on the preliminary stage regarding their compatibility, and to bundle up those statements which are compatible with each other.

Some acceptances are free of contradiction together. So, for example, the acceptance of a stimulation of the domestic demand harmonizes with the acceptance of economic growth. However, other acceptances do not fit. Thus, for example, the acceptance of a curtailment of economic freedom „bites" by the state with the acceptance of an affluent increase of the citizens. If somebody summarizes at a time those statements, which get on with each other together, one receives several bundles consistent in it from acceptances. Every of these bundles is the raw material for quite a certain scenario.

On the basis of his various material bundles of papers, the scenario writer sketches alternative developing ways for the system to be examined in the fifth and final process step. Every acceptance bundle consistent in itself flows into quite a special scenario, i.e. in a report which acts of what will be if the key factors of the system change in quite a certain manner.

The uncovering of each other of divergent developing options leads us away from the fixation on quite a certain future. The futurology which helps itself to the Scenario-Technology is thinking in alternatives.

2. Normative Projections

No planners and decision makers can manage their work without specific target values and ideals. Using the foresight, these goals and values are further developed i.e. they must pass to the future possibilities. The „What will be if…" statements of the positivist prognostics require the addition of normative projections. Normative projections make statements about what should be in the future, they are the drafts of the desirable future states and processes.

Because these normative projections should not slip into utopian, they must be critically verified both in terms of their logical consistency and in terms of the possibilities of their implementation. Moreover, the implementation of not feasible „better world" models can have disastrous consequences.

Conclusions

The future research, as a constitutive element of strategic planning, has two main tasks: the production of grounded statements about future situations, and the alignment of the goals and values to the future opportunities and risks.

Both the positivistic predictions, as well as the normative projections are created with the aim of releasing the forces oriented toward the actualization of the wished events, as well toward the prevention of the unwanted future events.

Future research propagates not a passive acceptance of future conditions; the results of the future research mean especially a call to action. The message of the Futurology is that future, can be created, and needs to be created.

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LEADERSHIP ISSUES IN PROJECT MANAGEMENT

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Abstract

The paper is addressing the complex phenomenon of leadership in the framework of project management. As learning critical lessons from business practices is helping students in leadership development, the authors have conducted a pilot study among 50 companies active in Romanian IT sector. The aim of the study was to assess leadership's issues of project managers in leveraging their project team members to successfully complete the projects.

Keywords: project management, leadership development, cultural values

INTRODUCTION

The new context of global market with a highly competition on customer has led to important changes in the business practices. The increased customer focus requires developing customized products and services and much closer relationships with the actors involved. These powerful environmental forces contribute to the rapid expansion of project management approaches to business requirements and opportunities.

Project management is no longer a special-need management and it is rapidly becoming a standard of doing business. Today, more and more employers are looking for graduates trained in project management. This subject is of increasing interest especially for engineering students who are encountering a highly exposure to project management skills.

Competition
has been shown
to be useful up to
a certain point and no
further, but cooperation,
which is the thing we must
strive for today, begins where
competition leaves off.
(Franklin D. Roosevelt)

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1. Theoretical Framework

In today's business world, there are plenty of powerful environmental forces that contribute to the increased demand for good project management across all industries and sectors. The compression of the product life cycle becomes a competitive advantage, more and more companies relying on cross – functional project teams to get new products and services to the market as quickly as possible. The global competition enforces companies to reduce costs and to offer cheaper as well as better products and services. Thus, project management with its focus on time, cost, and performance, is proving to be an efficient way to get things done. The increased customer focus has also prompted the development of customized products through project work. More and more executives are assuming the roles of projects manager in the attempt to satisfy the unique needs and requests of clients. Consequently, project management appears to be ideally suited for a business environment requiring innovation, flexibility, accountability, and continuous improvement.

Moreover, the historical changes have created a tremendous market for core project work in the diverse areas, such as construction and telecommunications, as Eastern European countries strive to revitalize their inefficient industries and infrastructures. In this light, it is well known that engineers possess a strong set of skills that enable them to do extraordinarily well in certain types of managerial work. Regardless of this, engineers are expected to possess the necessary knowledge, perspectives and tools in project management areas that enable them to get things done. As Chang [1] highlighted in his book, engineers are required to have insight how to capture opportunities offered by the emerging technologies, and to be innovative in making better and cheaper products in order to improve customer satisfaction.

In the area of leadership issues within project management field there are two noteworthy competing aspects: the responsibility to integrate assigned resources to complete the project according to plan,

and the need to initiate changes in plans as some problems make plans unworkable. A valuable contribution to this matter has been brought by Kotter [2] that has suggested these two different activities represent the distinction between management and leadership. Thus, management is about coping with complexity whereas leadership is about coping with change. Another interesting distinction between management and leadership concluded that leadership is fundamentally a value choosing, and thus a value-laden activity, whereas management is not. Leaders are thought to do the right things, while managers are thought to do things right [3, 4].

Although a large number of researchers have paid attention to the leadership area, there is no single correct definition. The various definitions of leadership can help to appreciate the multitude of factors that affect this concept, as well as different perspectives from witch to view it.

Some leadership researchers have focused on studying the personality and physical traits of the leader. They indicated that many cognitive abilities and personality traits are at least partly innate and may offer certain advantages or disadvantages to a leader [5]. But Huges, Ginnett, and Curphy [6] have argued that formative experiences may also influence many sorts of behavior, nurturing and suppressing different leadership qualities.

Another significant aspect of studying the complex phenomenon of leadership is related to the relationship between leaders and followers. Creating highly motivated and satisfied followers depends, most of all, on understanding others. As Hunter, Schmidt, and Judiesch [7] have suggested in their findings, the followers could give as much as 15% or 20 % more effort at work that they actually do with no one, including their own bosses, recognizing any difference.

Obviously, the hardest topic to study in leadership arena is referring to how aspects of the situation affect the way leaders act. Because people differ in thoughts and feelings, and strengths and weaknesses, leadership situations can be very complex. Thus, some scholars have argued that organizational successes and failures often get falsely attributed to the leader, but the situation may have a much greater impact on how organization functions than does any individual, including the leader [8].

Further developments in the scientific literature underline how an understanding of power has long been seen as an integral part of leadership. Current specialists in the field have also emphasized the need to conceptualize leadership as power phenomenon [9]. Thus, for the purpose of the research, the authors have focused on the leader standpoint by examining the phenomenon of power, as a key aspect for being an effective project manager.

According to the literature, power is defined as the capacity to produce effects on others or the potential to influence others [10]. The well-known scientist McClelland [11] contended that one of the basic human needs is the need for power. Because this need is learned and not innate, the power has been extensively studied [12, 13, 14].

Distinguished experts in social science have argued the power does not arise spontaneously heaving reasonably clear dimensions: position powers and personal powers [15]. The position powers refer to the organizational dimension of power and encompass three types of power sources: legitimate, coercive, and reward.

Legitimate power is the base of power that is anchored to individual's formal position or authority. Coercive power is the individual's capability to affect negative consequences. Reward power is related to the extent that individuals obtain compliance by promising or granting rewards.

The personal powers – expert and referent – are based on the person rather than the organization [15]. Access to these two sources of power does not depend solely on the organization. In the case of expert power, people influence others because of special expertise, knowledge, or skills. Referent power operates in much the same way, individuals influencing others because they are liked and respected. As Maccoby [16] has noted, referent power, called charisma, comes into play when individual's personality becomes the reason for compliance.

Valuable researchers in the field have made a clear distinction between power and influence tactics. According to Kipnis and Schmidt [17], the power is the capacity or potential to influence others whereas the influence tactics are the practice of power used to change the attitude, opinions, or behaviors of a target person. In this are of influence tactics, researches have yielded nine generic interpersonal influence tactics, ranked in diminishing order of use in the workplace: rational persuasion, inspirational appeal, consultation, ingratiation, personal appeals, exchange, coalition, pressure, and legitimization. Afterwards, other authors have structured the first five influence tactics in soft tactics because they are friendly and not as coercive as the last four tactics. Exchange, coalition, pressure, and legitimization are called hard tactics because they involve more overt pressure [18].

Further developments have shown a strong relationship between the power of agents and targets and the types of influence tactics used. Purcărea and Fleacă [19] have proposed a systemic approach of power – inputs, transformation process, and outputs. During the transformation process, managers use specific tools – power bases –, and techniques – interpersonal influence tactics – to influence their subordinates.

Another significant contribution to exploring influence tactics was brought by Blaine [20], who has defined three categories of influence tactics: power rests on fear, power rests on correctness, power based on principles. The first category encompasses a variety of tactics based on coercive power, such as pressure, legitimization, sanction, upward appeal, and assertiveness. The second category refers to inter-related power arisen from bargaining and trade-offs. These influence tactics are better than the first one, but have limited effects on individuals because of the parts involved in influence process are permanently monitoring the environment aiming at identifying better opportunities. The third type of influence tactics is based on trust and respect from the others. The significance of trust is deeply rooted in personal values and principles such as dignity, fairness, openness, the pursuit of truth, and respect. For the purpose of this research, the authors have focused on these three types of influence tactics: coercive, interdependency, and leadership.

2. Research Methodology

Although by no means exhaustive, the characteristics set for analysis – interpersonal influence tactics and power sources – obviously yields clues about the norms and values of Romanian IT Project Managers. The IT sector has been chosen because of its strong new communication technology influence.

The methodological approach was consisted of undertaking a descriptive research aiming at:

- Assessing the current practices of leadership;
- Examining whether the differences based on organizational variables – such as experience and managerial role – affect significantly the practices of leadership in the context of project managers' leadership requirements.

As consequence, the paper is addressing three key objectives:

O1. Analyzing the Romanian IT project managers' power sources and influence tactics;

O2. Studying the correlation between organizational variables of Romanian IT project managers and the use of power sources;

O3. Studying the correlation between organizational variables of Romanian IT project managers and the practice of exercising power.

In order to attain the last two research objectives, the following scientific hypotheses have been developed:

H_1: The IT project managers' experience influences significantly the use of power sources.

H_2: The managerial role of IT project managers influences significantly the use power sources.

H_3: There is a significant correlation between professional experience of IT project managers and the practices of power.

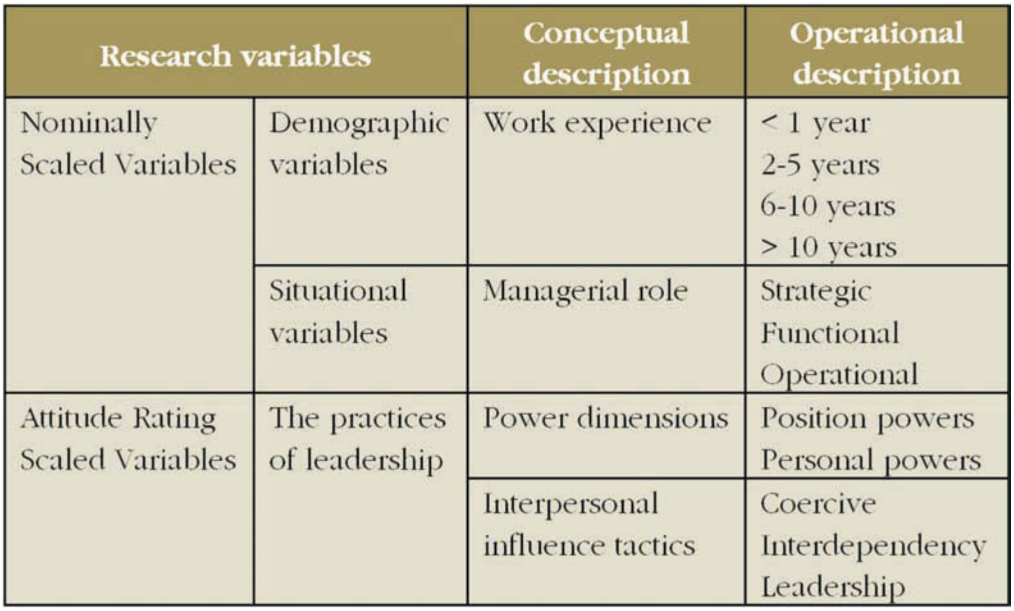
H_4: There is a significant correlation the managerial role of IT project managers and the practices of power.

2.1. Variables Measurement

Assessing the current practices of leadership for IT projects managers has required structuring the characteristics of the process in two types of variables: nominal and attitudinal. The nominally scaled variables are consisted of situational information, such as experience and managerial role. Furthermore, the attitude measurement concerning leadership issues has involved designing multiple-item scales. Table 1 shows the structure of the relevant variables of the research.

The process of developing the content of each item concerning the research variables assessment has drawn knowledge from the relevant social science theories. Position powers have been taken into account important research insights about the exercise of power in organizations [21]. Examples measured the extent to which respondents reward team members' performance, apply specific coercive techniques, and use the legitimacy of authority to make managerial decisions.

Table 1 – *The map of research variables*



Research variables		Conceptual description	Operational description
Nominally Scaled Variables	Demographic variables	Work experience	< 1 year 2-5 years 6-10 years > 10 years
	Situational variables	Managerial role	Strategic Functional Operational
Attitude Rating Scaled Variables	The practices of leadership	Power dimensions	Position powers Personal powers
		Interpersonal influence tactics	Coercive Interdependency Leadership

Developing the items aiming at assessing personal powers was measured adapting the results of researches in social science field to the particularities of project managers' work [9]. The items assessed the extent to which IT project managers develop amiable working relationships with project team members as well as the willingness to build team loyalty. Furthermore, items were measured the degree in which IT project managers provide technical suggestions and share considerable experience with project team members.

Coercive influence tactics were assessed using adaptation of items from the Profiles of Organizational Influence Strategies, POIS, elaborated by Kipnis et al. [22] to the project management context. Examples included the extent to which project managers agreed or disagreed that they invoke the adherence with organizational rules, order for compliance, sanction, and seek support from superior management levels.

Interdependency influence tactics were assessed using adaptation of items from the work of Yulk and Falbe [23] and Yulk and Tracy [24] to the project management context. The items assessed the extent to which project managers agreed or disagreed that they act in a friendly way, create enthusiasm, and exchange of bargains.

Leadership influence tactics were assessed developing items grounded in the work of the distinguished researchers Covey [25] and Blaine (2001). Examples included the extent to which respondents agreed or disagreed that they lead with dignity, fairness, being guided by a core set of principles in decision-making process, and have a sense of purpose for the common good.

2.2. Data Collection

The research was questionnaire-based. The questionnaire had an adequate pattern, starting with questions to evaluate the IT project managers' attitude and finishing with questions for respondents' characteristics. Dichotomy and open questions were used as well. Control questions have been used as respondent filter, too. The questionnaire was distributed to 50 companies active in Romanian IT sector.

The questionnaire was designed to gather plenty of demographic information such as gender, age, work experience, and situational information such as type of managerial role, organization type and structure.

2.3. Data Analysis

Gender structure was rather unbalanced (71.1% men and 28.9% women). Respondents' age was mostly of 36-45 years (42.1%), 31.2% of sample was up to 35 years, and only 26.7% were older than 46 years (Figure 1):

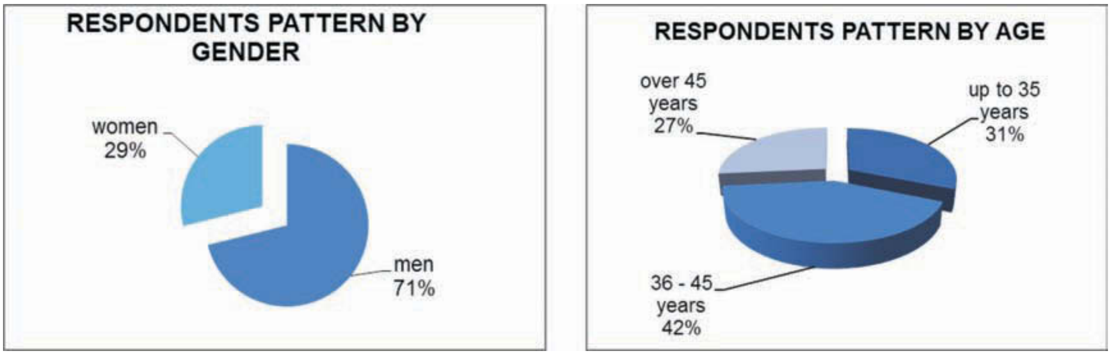


Figure 1 – *The respondents' pattern by gender and age*

As seen in Figure 2, the experience in project management work was spread mostly less than one year work experience (26.6%); 33.3% of sample had between 2 to 5 years; 22.2% of respondents had 6-10 years of work experience, and only 17.9% had more than 10 years' experience in same position.

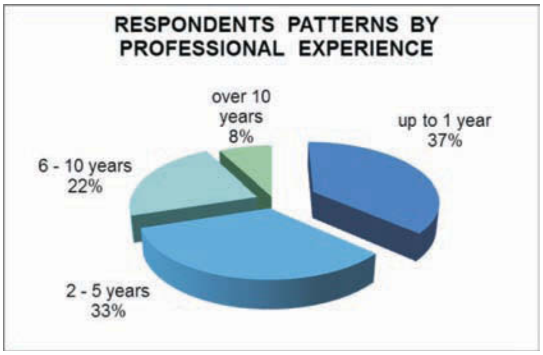


Figure 2 – *The respondents' pattern by professional experience*

The structure of the sample in terms of managerial roles was as follows: 28.9% of respondents from strategic level such as Portfolio Manager/ Director of Project Management Office; 48.9% from functional level such as Programme Manager/Project Manager; 22.2% came form operational level – Project Leader/ Project Specialist (Figure 3).

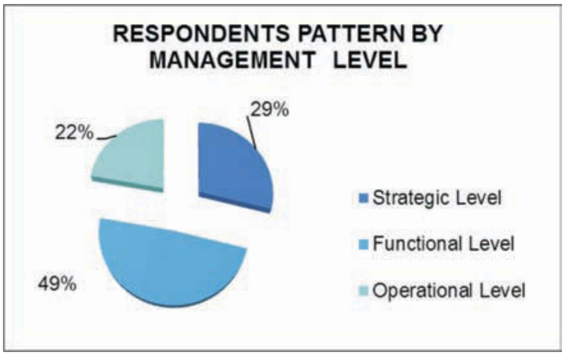


Figure 3 – *The respondents' pattern by management level*

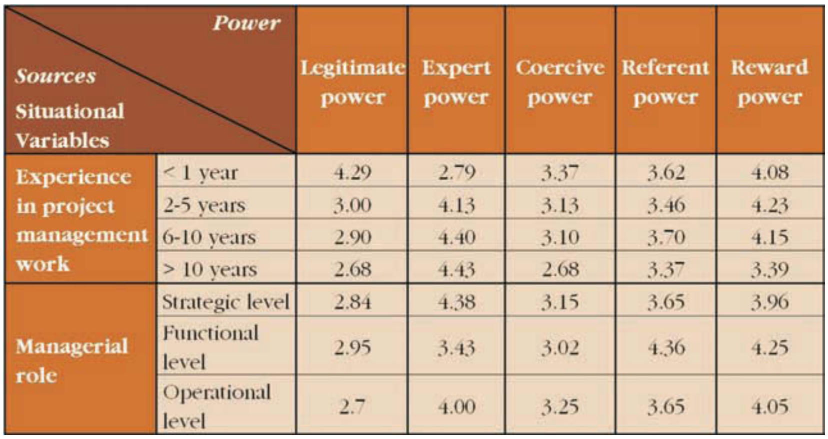
The respondents came from different organization types such as: 24.44% form budgetary organization, 68.89% from private capital, and 6.67% from public capital organization. From the structure standpoint, 68.89% of IT project managers' complete projects work within functional organizations, 22.22% in project-type structures, and only 8.89% in matrix organizations.

Statistical procedures were applied for data analysis, aiming to match the research objectives. As shown in Tables 2, 3, and 4, the central tendency was calculated taking into account the way in which the variables were measured, whereas the chi-square statistic test (χ^2) was calculated for testing statistical hypotheses.

Table 2 – *The key leadership practices of Romanian IT project managers*

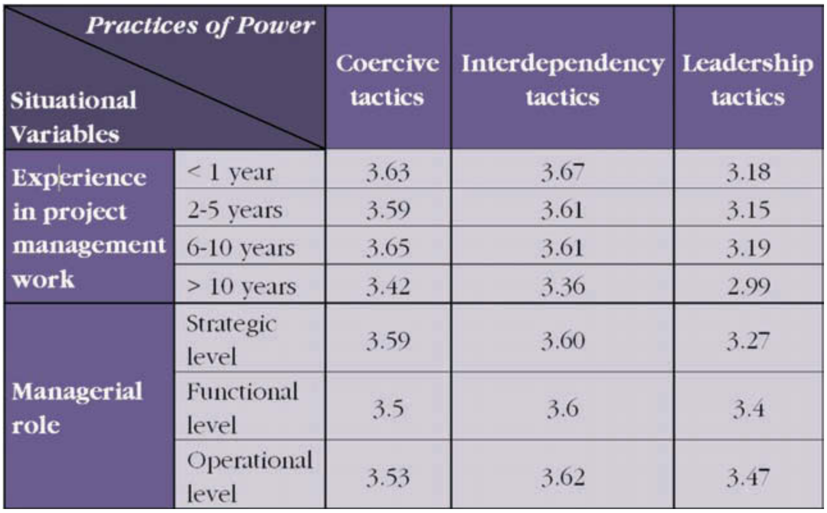
No.	Power dimensions/tactics	Description	Arithmetic mean
1	Position power	Reward power	4.09
		Coercive power	3.11
		Legitimate power	2.87
2	Personal power	Expert power	4.29
		Referent power	3.54
3	Leadership tactics	Building trust	4.35
		Sense of purpose	4.32
		Consultation	3.34
			4.00
4	Interdependency tactics	Inspirational appeal	3.69
		Ingratiation	3.34
		Exchanges	2.93
			3.32
5	Coercive tactics	Pressure	3.18
		Legitimisation	2.22
		Sanctions	2.04
		Upward appeal	2.07
			2.37

Table 3 – *The key correlation of situational variables and power sources*



Power *Sources* Situational Variables		Legitimate power	Expert power	Coercive power	Referent power	Reward power
Experience in project management work	< 1 year	4.29	2.79	3.37	3.62	4.08
	2-5 years	3.00	4.13	3.13	3.46	4.23
	6-10 years	2.90	4.40	3.10	3.70	4.15
	> 10 years	2.68	4.43	2.68	3.37	3.39
Managerial role	Strategic level	2.84	4.38	3.15	3.65	3.96
	Functional level	2.95	3.43	3.02	4.36	4.25
	Operational level	2.7	4.00	3.25	3.65	4.05

Table 4 – *The key correlation of situational variables and the practices of leadership*



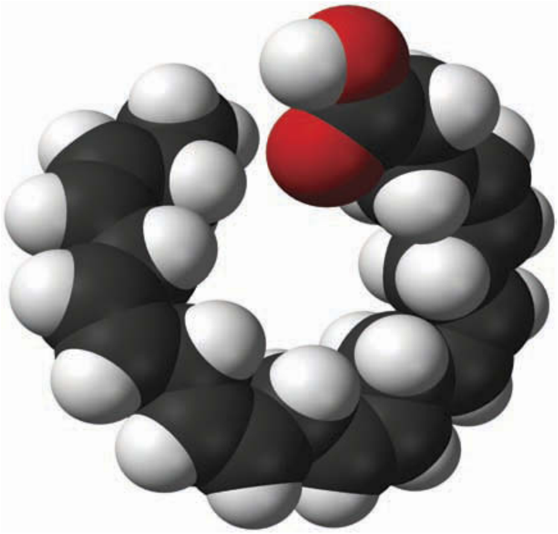
Practices of Power Situational Variables		Coercive tactics	Interdependency tactics	Leadership tactics
Experience in project management work	< 1 year	3.63	3.67	3.18
	2-5 years	3.59	3.61	3.15
	6-10 years	3.65	3.61	3.19
	> 10 years	3.42	3.36	2.99
Managerial role	Strategic level	3.59	3.60	3.27
	Functional level	3.5	3.6	3.4
	Operational level	3.53	3.62	3.47

3. Key Findings

Concerning the practice of exercise power (Table 2), project managers are likely to exercise their influence through expert power (4.29) – stemmed from their knowledge, reputation, and status –, followed by reward power (4.09) and referent power (3.54). At the first glance, Romanian project managers are professionals with a solid foundation of knowledge in project management, being aware of best practices in the field. The results point out that at perceived level project managers are likely to embrace leadership influence tactics (4.00) such as building trust, sense of purpose, and consultation (table 3). As for as coercive tactics, the research results underline the tendency of Romania IT project managers to avoid the usage of negative consequences in leveraging the project team members. Interestingly, a previous research of Gallup on working behavior of Romanian employees highlights their tendency to obey the orders of the superiors, ensuring that coercive influence tactics are usually occurring in obtaining the subordinates' compliance.

For the first scientific hypothesis, the null hypothesis has been rejected; meaning that the IT project managers' experience influences significantly the use of power sources. As data analysis reveals (table 3), experienced project managers (more than 10 years experience in the field) tend to use the expert power (4.43) in leveraging their team members because they know about work schedule and assignment before their employees do. Furthermore, the less experienced project managers are more likely to use legitimate power (4.29), that comes into play when they obtain compliance through theirs formal position or authority.

Concerning the second research hypothesis, the null hypothesis has been rejected; meaning: the managerial role of IT project managers influences significantly the use power sources. As shown in table 3, project managers come from strategic level, such as portfolio managers or director of project management office tend to use expert power based on specialized knowledge. Although, some researchers argued that expert power is not confined to higher organizational levels, the project management competence viewed as technical expertise is a potential source of power. There are a plenty of skills reflected at the project managers' competence, such as the ability to answer questions, solve technical problems, and excel in certain kind of work. As for functional level, the data analysis reveals the tendency of project managers to use referent power to get people to cooperate and perform. In the context of project management, referent power comes into play when the project managers obtain the team compliance based on the authority of someone in a higher position. Finally, at the operational level, project managers are more likely to use reward power that comes directly from their ability to contribute to others' accomplishing their work. Probably, the most significant form of this power source is the ability to respond to subordinates' requests for additional resources, or time to complete a segment of a project.



In the light of power practices, the third and fourth research hypotheses have been validated meaning that there is not a significant correlation between professional experience or managerial role of IT project managers and the practices of power. These results yield significant clues about the practices within the project management community: project managers, regardless of their managerial role, tend to influence through interdependency tactics stemmed from bargains and trade-offs. The findings draw the explanation from the characteristics of project management work. The success of the projects depends on how project managers manage the trade-offs among time, cost, and performance. Moreover, they have to build cooperative networks among different competing parties – project stakeholders – increasing access to available resources and information. Thus, networks have to be mutually beneficial trade-offs and alliances, being generally governed by the law of reciprocity: providing resources or service for others in exchange for future resources and services.

Conclusions

A proper use of project managers requires project managers to be aware of power sources and exercise influence tactics to obtain the cooperation of stakeholders' competing interests.

Although the study has significant limitations in terms of sample selection, industry, and number of respondents, it provides a starting point for investigating the practices of exercising power within Romanian project management community. Thus, future research will be performed capitalizing on this one and further extending within other industries to make a comparative analysis of the results.

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ENVIRONMENTAL MANAGEMENT AS A SYNERGETIC TOOL

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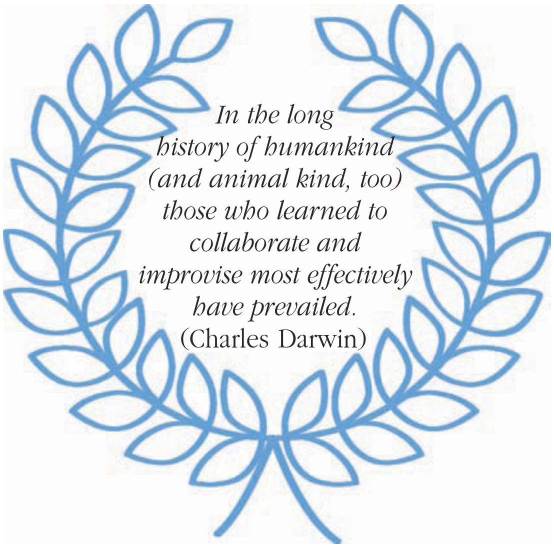
Abstract

The aim of this paper is to discuss the role that environmental management accounting plays as a tool intended to provide needed economic and ecological information at the company level with the aim of contributing to a more efective internal process of decision-making and control activities. Certain limitations and shortfalls of traditional accounting systems in handling various environmental issues are shortly discussed. Without information on full costs, it is even more difficult to take correct business decision on what changes to make in order to improve profitability in a business environment characterized by more intensified competition. Some barriers and open issues and challenges for further development of environmental management accounting, as well as general estimation of the situation with that regard in Bosnia and Herzegovina, are provided at the end of the paper.

Keywords: environmental costs, environment, accounting, management

INTRODUCTION



In the long
history of humankind
(and animal kind, too)
those who learned to
collaborate and
improvise most effectively
have prevailed.
(Charles Darwin)

There is a growing body of evidence that environmental issues have become important factor that different organizations and primarily manufacturing enterprises must take into account in the process of making various business decisions. Why should organizations and accountants within the organizations care about environmental issues? One reason is that many internal and external stakeholders are showing increasing interest in the environmental performance of organizations, particularly private sector companies.

An example of internal stakeholders might be employees affected by pollution in the work environment. External stakeholders include communities affected by local pollution, environmental activist groups, government regulators, shareholders,

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investors, customers, suppliers and others. In other words, today's challenges to companies, in developed as well as in the transition countries, to raise the quality of their environmental performance is the result of the pressures coming from the wide range of different parties (state and local governments, international organizations, ecological/consumers' associations, insurers, banks, business partners, media etc.). That environmental pressure is forcing many organizations to look for new, creative and cost-efficient ways to manage and minimize wide range of environmental impacts. In order to effectively manage the environmental pressures, and related costs and benefits, a company needs various types of expertise, including environmental, technical, accounting and finance, marketing and public relations, and general management. Accountants have a special role to play because of their access to an organization's monetary information, their ability to improve or verify the quality of such information and their skills in using that information to help make sound business decisions in areas such as investment appraisal, budgeting and strategic planning.

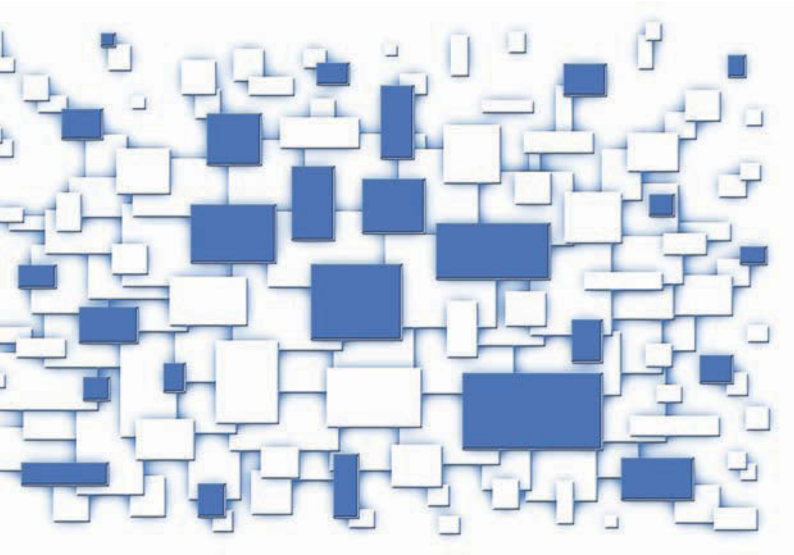
Traditional Accounting Systems and Environmental Issues

Sometimes the amount of materials alone does not provide so obvious an action. Honest costing information is necessary to assist companies in making good decisions about materials use. Cost accounting practices assure that all expenses will be allocated to the particular process or product where they originated. This differs from conventional accounting, which has allowed for some costs, although clearly dedicated to a particular process or product, to be assumed as overhead and not properly allocated. Historically this has been true for all environmental costs (e.g. staff time, permitting fees, waste management costs) which have been lumped into overhead.

Traditional systems of accounting (financial, managerial and cost accounting) shows important shortfalls and limitations as an informational basis for the business decision-making process on the company level, in the sense of inadequate recording and usage of environment related information, primarily different categories of environmental costs. Traditional accounting systems that are created and adapted for the needs of financial management and reporting typically do not succeed to allocate environmental costs on those activities, products or processes which are responsible for these costs. Environmental costs that might be relatively high for certain sectors or products, particularly if less visible and less tangible costs are taken into account, usually are treated and recorded simply as common overhead costs. That results in the fact that these costs are practically „hidden” from management and consequently not included as relevant information in various phases of management process. Hence the constant tendency of the management to underestimate the extent and growth of such costs. The rule of thumb of management is that 20 percent of production activities are responsible for 80 per cent of environmental costs. When environmental costs are allocated to overhead accounts shared by all product lines, product with law environmental costs practically subsidize those with high costs. Such a way of recording of environmental costs within traditional accounting system has evidently numerous negative consequences as follows: inappropriate cost allocation on different levels, inaccurate determination of prices for products and services, distorted scheme of rewards and compensations for employees, inadequate capital budgeting and investment appraisal, inappropriate product mix, inability of effective application of measures for cost reduction, etc.

Traditional or functional accounting has an obvious tendency to rely heavily on precisely determined quantitative measures. The assumption is that such measures are objective. This is supported by Willis [1] „As far as the consideration of environmental costs and impacts is concerned, the conventional accounting model's fundamental shortcoming is that, being entity-centered, it deals with the entity's market-priced transaction within the conventional market-based economy; it has no means of valuing and recording any transaction for which the marketplace has not assigned a value (or for adjusting when there is a partial value).” To handle environmental issues at all one must accept that certain amount of subjectivity is inevitable in the activities like identifying environmental costs, estimating environmental benefits, accounting for environmental risk and contingencies and hence liabilities of the company, undertaking environmental audits and introducing eco-balance sheets. All these activities are problematic from the standpoint of traditional accounting framework. But the consequences of neglecting or ignoring of more or less subjective

estimates and measures is effectively highlighted by the following observation [2]. „The first step is to measure whatever can be easily measured. That is ok as far as it goes. The second step is to disregard that which can't be easily measured or give it an arbitrary quantitative value. This is artificial and misleading. The third step is to presume what can't be measured easily really isn't important. This is blindness. The forth step is to say that what can't be measured really doesn't exist. This is suicide." But the possible explanations of why there is such a strong bias towards financial information in traditional accounting systems might be that: **a)** the ultimate objective of a company (maximizing shareholder value or profitability) is expressible in monetary form, and information which can be expressed in the same terms is always likely to attract more immediate attention; and **b)** the financial side of management is relevant to all functions, including environmental management. Not only do environmental budgets need to be managed, but also proposals for action, which can be justified in terms of conventional methods of financial investment appraisal and product costing, for example, are more likely to be successful.



Increasing Role of Environmental Management Accounting

In general, it is possible to indentify six different domains of environmental accounting which are relevant to the firm level, based on their boundaries of attention – an individual organization, the supply chain if which it forms part and the whole of society – and the extent to which they focus on financial and/or non-financial information. The six domains which emerge can be defined as follows: Energy and materials accounting – the tracking and analysis of all flows of energy and substances into, through and out of organization. Environment related financial management – the generation, analysis and use if monetized information in order to improve corporate environmental and economic performance. Life-cycle assessment – a holistic approach to indentifying the environmental consequences of a product or service through its entire life cycle and identifying opportunities for achieving environmental improvements. Life-cycle cost assessment – a systematic process for evaluating the life-cycle costs of a product or service by identifying environmental consequences and assigning measures of monetary value to these consequences. Environmental impact assessment – a systematic process for identifying all the environmental consequences of an organization, site or project's activities. Environmental externalities costing – the generation, analysis and use of monetized estimates of environmental damage (and benefits) created by an organization, site or project's activities.

Environmental management accounting (EMA) which represents the use of accounting and related information to support internal management can potentially encompass all of the six domains but in practice is primarily concerned with environment-related financial management and the linkages with energy and material accounting and other internal and external systems needed to generate financial data. Combining different definitions available we can say that: Environmental management accounting is the process of identification, collection, estimation, analysis, internal reporting and use of materials and energy flow information, environmental cost information and other cost information for both conventional and environmental decision-making within an organization-company. It is obvious from the definition that EMA incorporates and integrates two of the three building blocks of sustainable development – environment and economics – as they relate to an organization's internal decision-making process. The third building block – society – is not directly included since EMA focuses on costs internal to the company and does not include external costs to individuals, society, or environment for which a company is not legally held responsible.

Incentives for corporations to use EMA come from the increasing pressures that companies are facing, such as more stringent regulatory pressure and growing market competition, as well as from the benefits of implementing EMA. The gains EMA systems offer to companies include (Figure 1):

(a) Identify impacts of environment related activities on the corporate bottom line, and identify hidden environmental costs in overhead accounts,

(b) Identify cost reduction and other opportunities to improve performance and offset environmental costs by generating revenues,

(c) Demonstrate the cost savings to be gained from good environmental management, and reduce or eliminate non-value-added costs, offsetting environmental costs by generating revenues,

(d) Raise management commitment and awareness, and assist decision-making on cost allocation, capital budgeting, product pricing, product mix, investment and development, and increase competitive advantages and market expansion opportunities to environmentally aware consumers,

(e) Support development and operation of an overall environmental management system; provide assurance to stakeholders of improvements in environmental performance,

(f) Reduce environmental liabilities and risks, and enhance compliance with environment-related laws and regulations,

(g) Enhance customer values, thereby increasing competitive advantage,

(h) Improve environmental performance and protection of human health, establishing a green corporate image,

(i) Provide improved environmental, financial and other data for reporting to external stakeholders, and

(j) Supporting long-term sustainability of the business, taking into account economic, environmental and social factors.

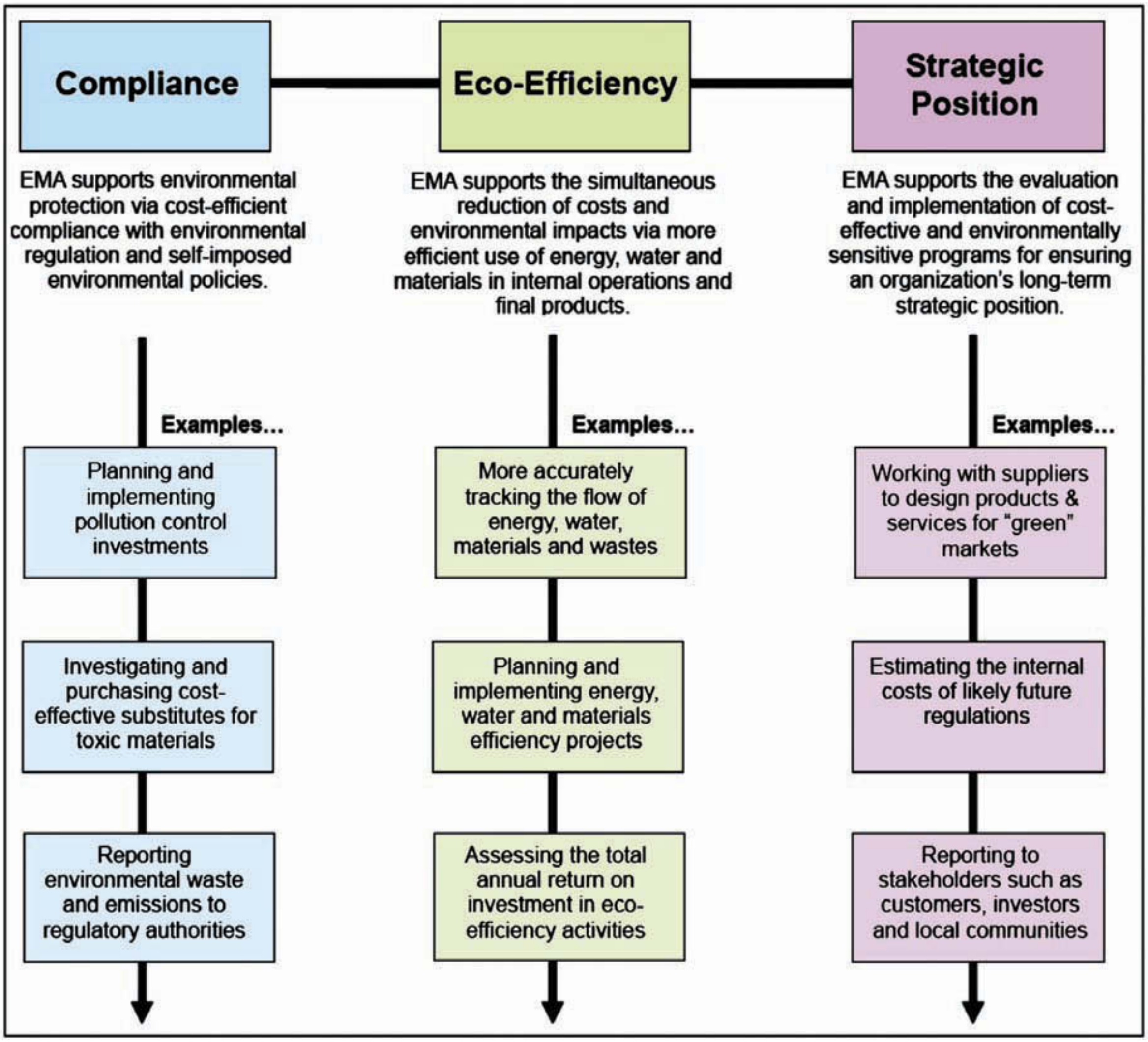

Compliance
Eco-Efficiency
Strategic Position
EMA supports environmental protection via cost-efficient compliance with environmental regulation and self-imposed environmental policies.
EMA supports the simultaneous reduction of costs and environmental impacts via more efficient use of energy, water and materials in internal operations and final products.
EMA supports the evaluation and implementation of cost-effective and environmentally sensitive programs for ensuring an organization's long-term strategic position.
Examples...
Examples...
Examples...
Planning and implementing pollution control investments
More accurately tracking the flow of energy, water, materials and wastes
Working with suppliers to design products & services for "green" markets
Investigating and purchasing cost-effective substitutes for toxic materials
Planning and implementing energy, water and materials efficiency projects
Estimating the internal costs of likely future regulations
Reporting environmental waste and emissions to regulatory authorities
Assessing the total annual return on investment in eco-efficiency activities
Reporting to stakeholders such as customers, investors and local communities

Figure 1 – *Uses and benefits of EMA*. Adapted from [3].

Adopting a structured approach to resource productivity can help companies achieve cost savings of 1-3% of annual turnover, depending on the nature of their business operations. This is backed up by the experiences of over 500 companies participating in waste minimization clubs. Over 60% of the cost-saving projects that these companies undertook were no-cost or low-cost. Applying environmental management accounting techniques at companies where the cost of materials, utilities and wastes account for about 80% of business costs can typically result in cost savings of about 3% of annual turnover. Companies where environmental costs account for about 30% of business costs can, on average, save about 1% of annual turnover [4]. This relationship is shown in Figure 2, which will help a company to estimate the potential cost savings it could achieve.

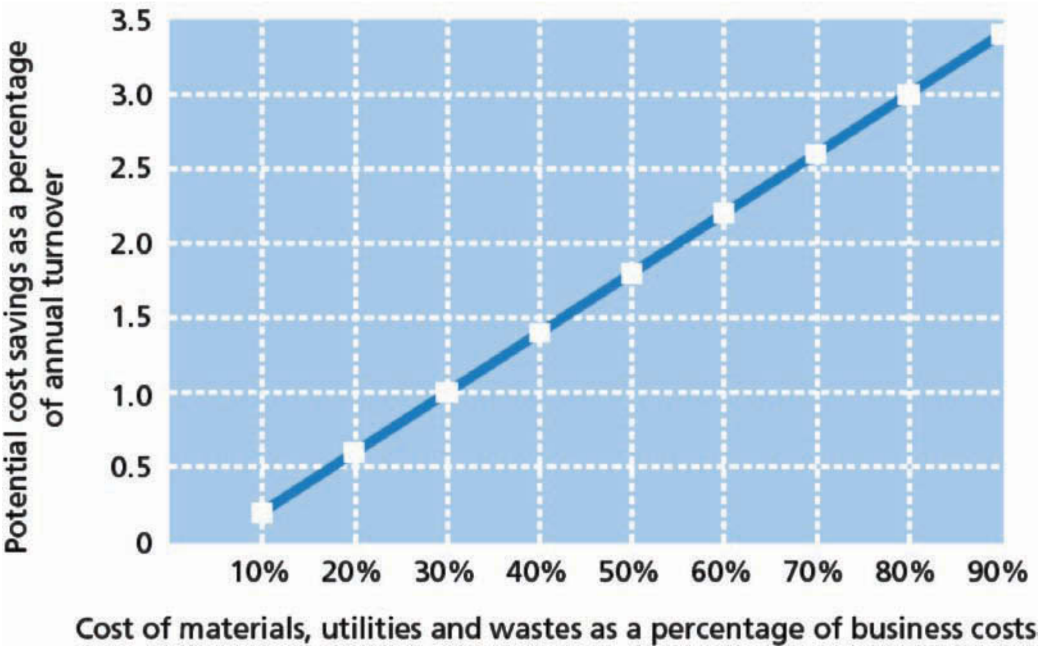


Figure 2 – *Typical potential cost savings as a percentage of annual turnover*

The general ledger is a good starting point for accountants wishing to identify which environmental costs to target for improvement. Reviewing the general ledger to identify where the costs of materials, utilities and waste disposal are allocated will also help to find the largest items. These are likely to represent the greatest opportunities for cost savings.

Traditionally, while making such decisions management has ignored environmental performance information and concentrated predominantly on financial impacts. Environmental protection decisions have often been driven by regulatory requirements and are not thought of in financial performance terms. However, as environmental protection costs continue to increase (i.e. as externalities become internalized to the company) and managers realized that internal cost savings can be obtained from improved environmental performance, the integration and redefinition of these techniques becomes more and more important.

The Case of Bosnia and Herzegovina

In order to assess the situation in Bosnia and Herzegovina regarding the usage of environmental management accounting the survey has been made. A questionnaire has been sent electronically to the responsible managers of 100 firms from various sectors. The response rate was only 18%. We are aware that the sample is not representative. The results obtained can serve only as provisional and illustrative data, helping to create general assessment. The aim of the survey was to assess the way firms use accounting systems for the official reporting and decision making, and the way they measure their performance and business success. We were interested if the firms are aware of the EMA, its potential benefits and the extent to which the EMA system is used in Bosnian firms.

The survey has demonstrated that the most frequently used financial indicators based on accounting systems applied are: profit margin, ROI and ROA. The most frequent nonfinancial indicators are: market share, customer satisfaction and employees satisfaction. A small percentage of managers (16%) said they ware aware of the EMA and its potential benefits, but all of them replied that they had not yet practically introduced an EMA system in their companies. As the main reason for such a situation managers said they are not legally obliged to use such a system. In spite of the potential gains from EMA the system has not been yet implemented in companies in Bosnia and Herzegovina. The barriers that block this implementation are lack of information on EMA systems and the benefits they can generate (84% of managers are not fully aware, or are partially aware of the EMA system). For 82% of the companies form the survey, the process is considered too costly relative to the benefits. Lack of knowledge and qualified personnel and lack of available tools are other barriers (87%). Although it was not visible from the survey one of the possible barriers might be the resistance of some managers against full transparency of all costs. Increasing knowledge on all cost drivers requires adequate managerial measures to be implemented. It requires also and increasing creativity and additional efforts of the management in order to achieve successful cost reduction and vice versa increases their responsibilities for failures to do that. General business climate and social circumstances in Bosnia and Herzegovina might be the part of the explanation for such a situation.

Conclusions

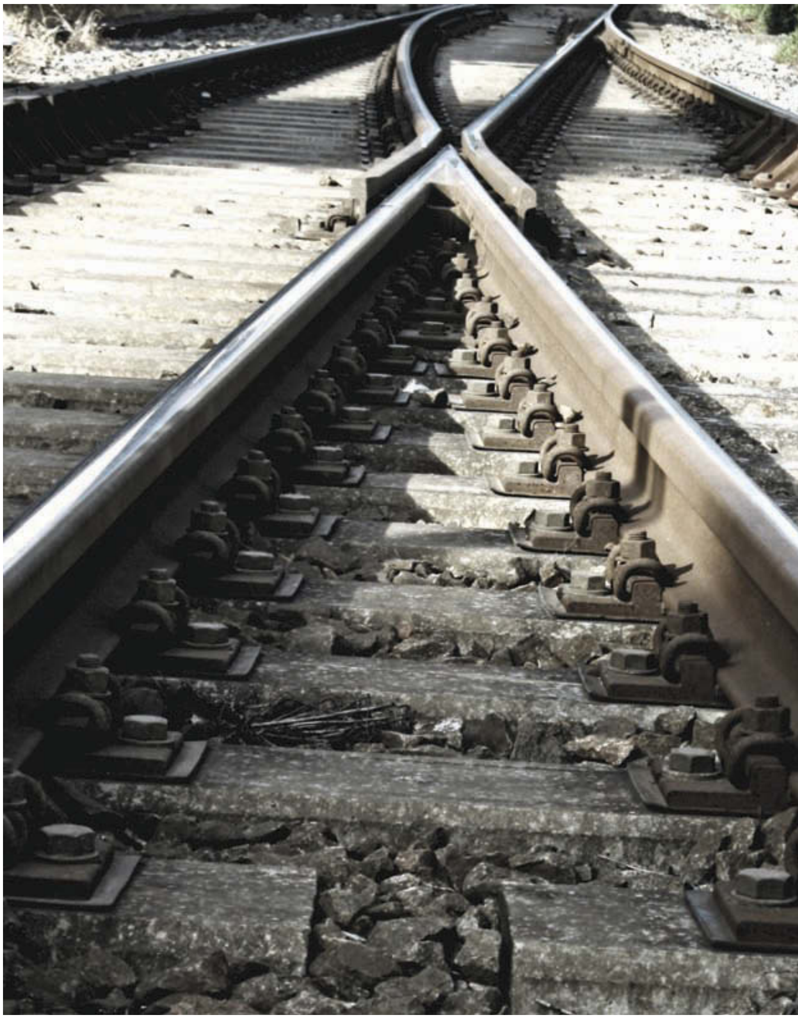
Regardless of its proved increasing importance for successful performance of companies, the current state of environmental accounting and environmental management accounting practices in almost all countries is still characterized by experimentation and lack of harmonization. It is particularly true for Bosnia and Herzegovina. Hence a variety of challenges in front of academic and business society to be resolved in the future.

Developing of appropriate environmental accounting standards. Environmental management systems and reporting frameworks have been established by some of the world's leading environmental organizations, standards organizations, industry associations, and professional bodies. As these frameworks are increasingly adopted in industry, the accounting bodies represented by IFAC-International Federation of Accountants are likely to increase their efforts towards developing appropriate accounting standards.

Enhance the responsibility of companies to internalize by means of environmental accounting greater portion of social costs related to environmental degradation and pollution. Currently companies are predominantly concerned only with those aspects of environmental issues that have direct impact on their financial bottom-line and those for which are held legally responsible. Companies account for plant and equipment depreciation when calculating profits, but no deduction is made for the degradation of natural capital (ecosystems, oceans, forests and the like).

Enhance the existing narrowly defined primary goals of environmental accounting which according to US EPA are as follows: **a)** Increase of stakeholder value by decreasing costs and increasing productive efficiency; **b)** Move environmental costs out of overhead accounts and track them directly to the responsible product, process or facility; and **c)** Estimate the dollar costs of waste and related activities, in order to identify the best opportunities for improvement and cost savings.

Better valuation techniques for natural resources and environmental resources are desperately needed. Traditional price



theory should be enhanced to incorporate new issues and transform currently inadequately monetized environmental effects and facilitate their incorporation into accounting practices.

In summary, the challenge which will definitely continue to be the one among the most important challenges in the future is how to translate general sustainability goals into concrete and operationally meaningful concepts, policies, measures and indicators at micro level, as well as how to incorporate relevant environmental issues into different branches of mainstream economic theory and practice of business strategic and operational management. This means the challenge of the further appropriate development of environmental accounting in general and particularly environmental management theory and practice.

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THE EMERGENCE OF QUALITY CULTURE

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Abstract

Organizational culture can significantly support or hinder the implementation of quality initiatives. The paper presents the results of fieldwork research conducted in a large Romanian leather and footwear production company to identify and examine the nature of the organizational culture in a quality-oriented organization. The company profile is presented, the research methodology is displayed, followed by data analysis and interpretation of the results. The findings reveal that the organizational culture is a very complex and important factor to be considered by an organization pursuing high quality levels. The paper closes with some conclusions regarding objectives attainment, and advances recommendations for future facilitating actions.

Keywords: quality, organizational culture, total quality management, Romanian companies

INTRODUCTION

Given today's rapidly changing economic environment, worldwide enterprises must enhance their competitiveness and meet international requirements in order to succeed – sometimes only to survive – in the global marketplace. To accomplish this, they not only have to provide faultless products and services, but also must excel in all organizational areas. In this regard, quality systems implementation is one of the most viable and effective solutions [1], and it has been proven that the organizational culture can support or severely deter quality initiatives at an organizational level. In order to increase knowledge in this critical area, the case study presented in the paper examines the nature and the profile of the quality culture in a Romanian leather and footwear production company.

> *Synergy –*
> *the bonus that is*
> *achieved when things*
> *work together*
> *harmoniously.*
> (Mark Twain)

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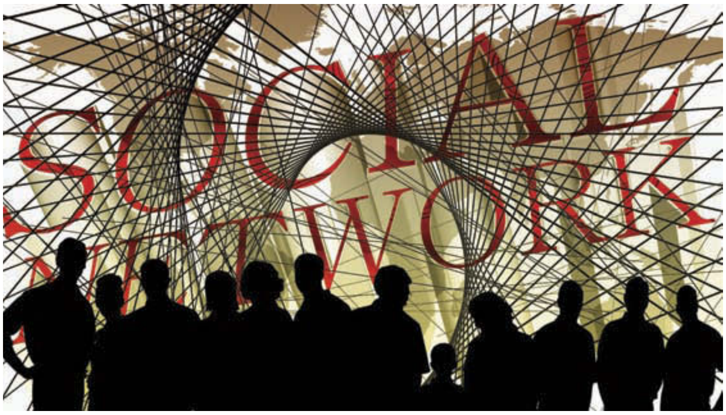


Culture is the integrated pattern of human knowledge, belief and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations [2]. Recently, more and more studies confirm the important role of the organizational culture to the success of any organization, promoting the culture as a key element for high levels of efficiency, efficacy and competitiveness [3]. The organizational culture is not the explicit behavior or visible objects that can instantly be seen, but rather the underlining of values that determines behavior patterns [4]. Therefore, the concept of quality culture has emerged.

The quality culture has been defied as a culture promoting social relationship of trust and respect for the individuals, a shared sense of belonging to the organization, and the belief that continuous improvement is for everybody's best (Hill 1991, cited by Huțu, [5]). Cameron defines the quality culture as the reflection of quality in the general orientation towards work, in the vision and strategic mission of the organization, and in the organizational processes, systems and policies [6]. Likewise, for Watson and Gryna, the quality culture is the structure of values, habits, dominant attitudes and accepted behaviors related to quality, from an organization [7].

Research Methodology

The company presented in the paper is a privately owned Romanian leather and footwear production company located in Brașov area. The company is ISO 9001-2008 certified, and holds the 14000:2005 environmental certification.

Research Design

This research used quantitative methodology for exploratory and descriptive purposes. The survey and the observation were used as research methods, together with the study of significant company documents. The research instruments were two questionnaires, the first investigating the quality culture in Romanian companies, and the second examining the cultural profile of the company.

The quality culture was evaluated through a 21-item questionnaire adapted from the instruments developed by Watson and Gryna [7]. There were used both open-ended, and close-ended questions. For the close-ended alternatives, Likert answer scale was used, ranging from „A – To a very limited extent" to „E – To a very large extent".

The cultural profile of the company was obtained by identifying the values that form it. The respondents indicated, for each of the 50 values listed, on a Likert answer scale ranging from 0 („Not at all characteristic to the company I work for") to 4 („Essential characteristics of the company I work for"), the degree to which a value was characteristic for the company. The questionnaire was adapted from the one used by Calori and Sarnin [8].

There were investigated the following five ***areas of quality culture***:

- The way and the extent to which the company creates and maintains the awareness of quality;
- The way and the extent to which the company provides evidence of management commitment to quality;
- The way and the extent to which the company encourages and supports self-development and empowerment of the employees;
- The way and the extent to which the company provides opportunities for employee participation to quality initiatives;
- The way and the extent to which the company provides recognition and rewards of the employees for quality.

Research Sample

For sampling, the non-probabilistic method was used, as the configuration of the researched population (different levels of management) was not adequate for probabilistic sampling, neither from a dimensional, nor from a structural point of view. Consequently, a mixture of Henry's (cited by Huțu [5]) sample types was used: convenience, typical cases, critical cases and „snowball". The sample consisted in 40 individuals from all company's departments, as follows: 6 top and medium managers; 34 employees: 5 line managers and 29 workers (Figure 1):

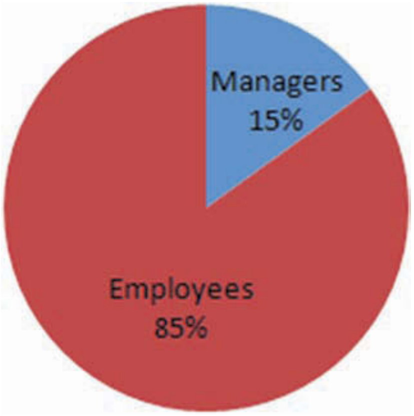


Figure 1 – *Respondents Hierarchical Level*

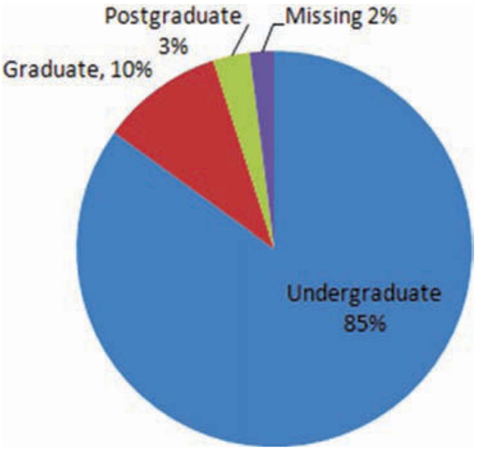


Figure 2 – *Respondents Education*

It can be observed that the sample consists mainly of women (97%), of an average of 42 years old, with an average of 19.5 years of employment with the company. Therefore it must be concluded that future cultural shifts will be difficult to implement, will face significant cultural resistance, will need intensive training, and long-term, slow-pace implementation.

Results Interpretation

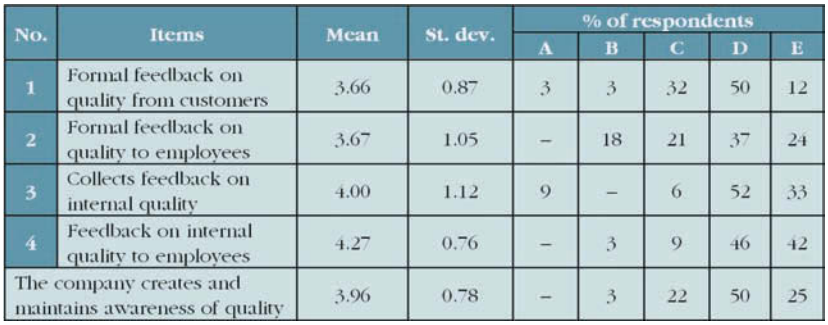
The statistical analysis of the collected data involved the statistical summary of the relevant information, and correlation matrix analysis. There were analyzed the following areas of quality culture:

The Company Creates and Maintains Awareness of Quality

The company receives feedback on quality from customers to a large extent (Table 1). The feedback consists in complaints, recommendations for improvement; seldom have the clients given positive feedback on quality, mostly because it is not customary to do so within the company.

It can be observed that 75% of the respondents consider that the company creates and maintains to a large and very large extent a relatively high level of awareness of quality (mean = 3.96, max = 5).

Table 1 – *The Company Creates and Maintains the Awareness of Quality*



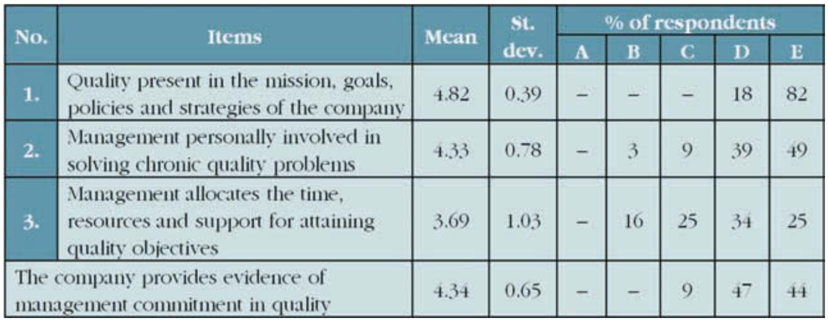
No.	Items	Mean	St. dev.	% of respondents				
				A	B	C	D	E
1	Formal feedback on quality from customers	3.66	0.87	3	3	32	50	12
2	Formal feedback on quality to employees	3.67	1.05	–	18	21	37	24
3	Collects feedback on internal quality	4.00	1.12	9	–	6	52	33
4	Feedback on internal quality to employees	4.27	0.76	–	3	9	46	42
The company creates and maintains awareness of quality		3.96	0.78	–	3	22	50	25

The Company Provides Evidence of Management Commitment to Quality

The majority of respondents (91%) consider that the management team is relatively significantly committed (mean = 4.34) to quality (Table 2):

The vast majority (82%) of the respondents know that the quality is present in the mission, goals, policies and strategies of the company. Top management is perceived as committed to solving the chronic quality issues of the company to a large and very large extent, but as referred to allocating the resources for meeting quality objectives, the perception is lower, and the opinions are heterogeneous (high st. dev.).

Table 2 – *The Company Provides Evidence of Management Commitment to Quality*



No.	Items	Mean	St. dev.	% of respondents				
				A	B	C	D	E
1.	Quality present in the mission, goals, policies and strategies of the company	4.82	0.39	–	–	–	18	82
2.	Management personally involved in solving chronic quality problems	4.33	0.78	–	3	9	39	49
3.	Management allocates the time, resources and support for attaining quality objectives	3.69	1.03	–	16	25	34	25
The company provides evidence of management commitment in quality		4.34	0.65	–	–	9	47	44

The Company Encourages, Supports Self-Development, Empowerment of Employees

The respondents reflected a rather low level of training in quality (mean = 3.73) provided by the company (Table 3). Decision delegation and empowerment is even rarer. These are important issues to the quality culture, given that the profile of the company shows that training and empowerment to be among the main methods of cultural transformation.

Table 3 – *The Company Encourages and Supports Self-Development and Empowerment*

No.	Items	Mean	St. dev.	% of respondents				
				A	B	C	D	E
1.	The company provides training/ development for quality	3.73	0.98	–	15	27	37	21
2.	The management practices empowerment and delegation to lower hierarchical levels	3.64	0.99	–	15	27	37	21
The company encourages and supports self-development and empowerment		3.68	0.89	–	6	24	40	30

The Company Provides Opportunities for Employee Participation

Employee participation to different quality initiatives and activities is an underdeveloped practice in the company (mean = 3.16), and also little known (very heterogeneous answers, high standard deviation), as shown in Table 4.

However, there are some quality activities that the employees can access, such as quality meetings, and clients visits.

Table 4 – *The Company Provides Opportunities for Employee Participation*

No.	Items	Mean	St. dev.	% of respondents				
				A	B	C	D	E
1	The employees are involved in activities other than their job requirements for attaining company's quality objectives.	3.16	1.19	13	13	34	27	13

The Company Provides Recognition and Rewards

This quality culture area is the least developed in the company (mean = 2.18). Reflecting the relatively poor financial situation, and the low preoccupations for employee motivation and involvement, the company provides little recognition, and especially little rewards for quality (Table 5).

Table 5 – *The Company Provides Recognition and Rewards*

No.	Items	Mean	St. dev.	% of respondents				
				A	B	C	D	E
1	The company provides recognition for high performances in attaining quality objectives	2.36	1.29	33	27	15	19	6
2	The company provides rewards for high performances in attaining quality objectives	1.55	0.83	64	21	12	3	–
The company provides recognition and rewards		2.18	1.10	30	40	15	12	3

Some of the recognition practices that are, however, seldom engaged, are informal recognition on shop floor, and occasionally formal recognition in general meetings.

To obtain a comprehensive image on the quality culture of the company, all areas previously investigated are further analyzed (Table 6):

Table 6 – *Areas of Quality Culture*

No.	Quality culture areas	Mean	St. dev.	% of respondents				
				A	B	C	D	E
1.	The company creates and maintains awareness of quality	3.96	0.78	–	3	22	50	25
2.	The company provides evidence of management commitment in quality	4.34	0.65	–	–	9	47	44
3.	The company encourages and supports self-development and empowerment	3.68	0.89	–	6	24	40	30
4.	The employees are involved in activities other than their job requirements for attaining company's quality objectives	3.16	1.19	13	13	34	27	13
5.	The company provides recognition and rewards	2.18	1.10	30	40	15	12	3

It can be observed that the best developed area is management commitment to quality, which represents a positive and essential factor. The least developed area is employee recognition and rewards for quality, followed by the low opportunities for employee involvement in quality initiatives, which indicate the weaknesses of the management process, and also the main areas for improvement.

The collected and analyzed data indicate ***a medium degree of development of quality culture*** (mean = 2.37, min. = 1, max = 3), as presented in Table 7:

Table 7 – *Statistic Indicators – Development Degree of Quality Culture*

Statistic Indicators	Values
Arithmetic mean	2.23
Median	2.00
Mode	2
Standard deviation	.49

This opinion was expressed by **63.3%** of the respondents, while 36.7% of them placed the degree of development of quality culture to a high level, and none to a low level.

The cultural profile of the company.

By testing the 50 values, the cultural profile of the investigated company emerged (Table 8).

The ten dominant values in the company are: *Clients as first priority, Duty, Discipline, Effort, Quality, Respecting rules, Personal availability / work, Personal involvement / work, Continuity,* and *Openness to the environment* (Figure 3).

There are some values considered as essential for the quality-driven culture, and the ranking of the value *Clients as first priority* as the most dominant shows that

Table 8 – *Values profile of the company*

No.	VALUES	Min.	Max.	Mean	St. Dev.
1	Clients as first priority	2	4	3,55	0,71
2	Duty	1	4	3,42	0,75
3	Discipline	2	4	3,39	0,70
4	Effort	1	4	3,33	0,89
5	Quality	2	4	3,33	0,69
6	Respecting rules	2	4	3,27	0,76
7	Personal availability / work	1	4	3,27	0,84
....					
44	Anticipation	0	4	2,31	0,93
45	Personal fulfillment	0	4	2,06	1,39
46	Will to be number one	0	4	2,06	1,17
47	Impartiality	0	4	2,06	1,17
48	Forgiving mistakes	0	4	2,06	1,17
49	Tolerance	0	4	2,00	1,06
50	Risk-taking	0	3	1,91	0,77

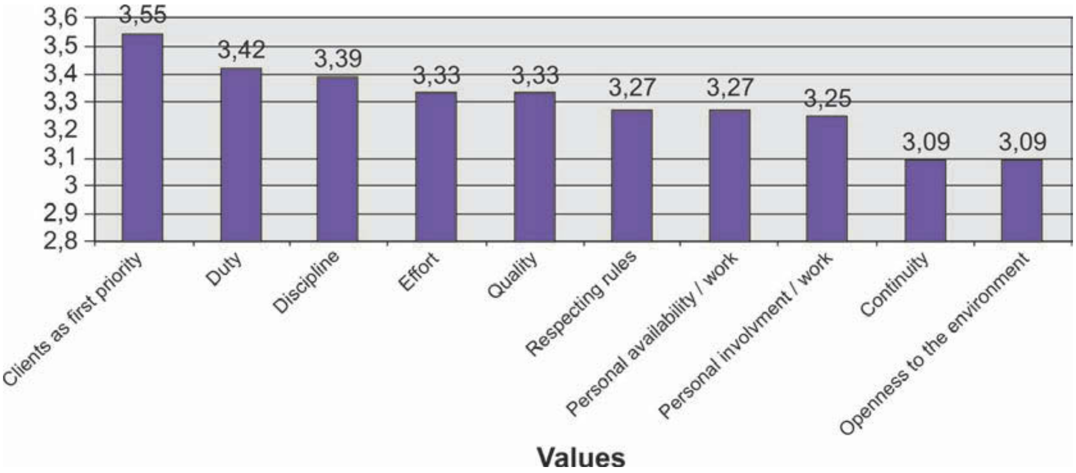


Figure 3 – *Values Specific to the Company*

the company possesses the foundation for developing a sound quality culture.

However, the values that are the least representative for the company are: *Risk-taking, Tolerance, Forgiving mistakes, Impartiality, Will to be number one, Personal fulfillment,* and *Anticipation*. The lack of these values can deter the development of a quality-driven culture and cause resistance to change (Figure 4).

Considering the homogeneity (low standard deviation) of answers on company values (which is a measure of the „strength" of the organizational culture), the values on which the respondents are relatively unanimous are: *Quality, Discipline, Clients as first priority, Duty, Tenacity, Adaptation, Initiative, Respecting rules,* and *Innovation*. It can be observed that these are also the

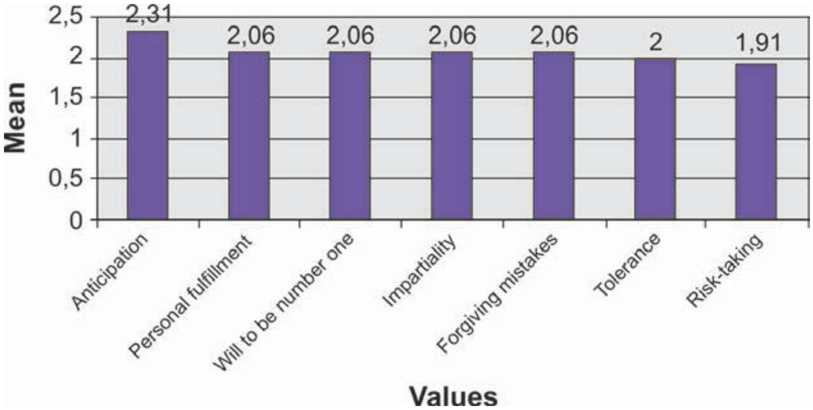


Figure 4 – *Values that are not Specific to the Company*

values most specific for the company, so it can be inferred that these values form the core of the firm's organizational culture.

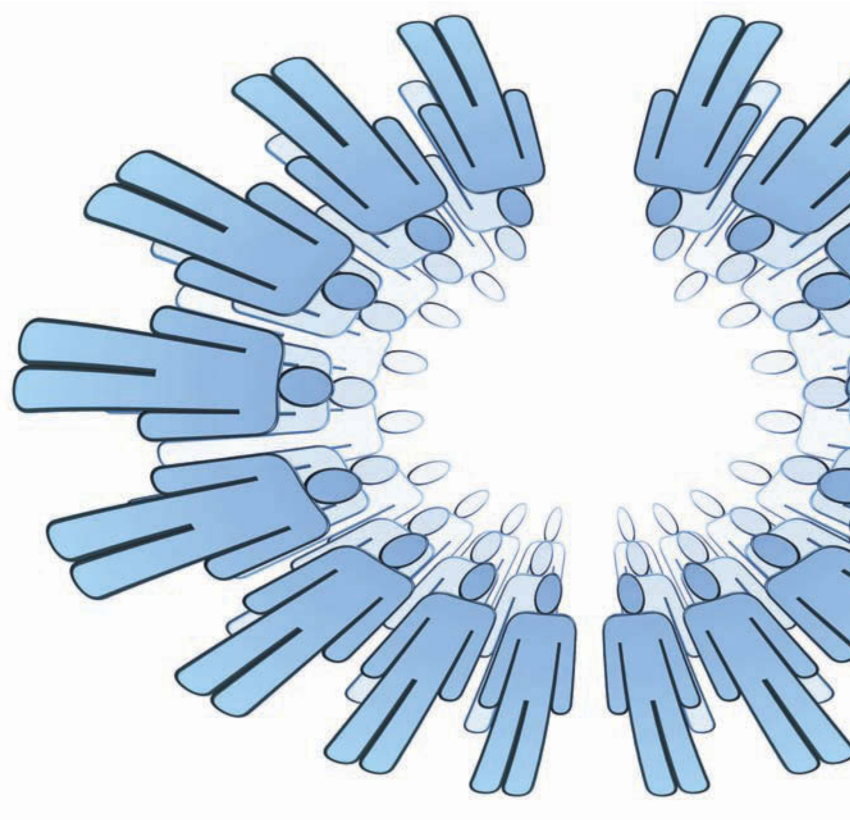
CONCLUSIONS

The paper identifies and examines the nature of the organizational culture in the dynamics of a Romanian leather and footwear production quality-oriented organization. From the integrated analysis of five areas of quality culture, a medium degree of development of quality culture within the company is obtained. The collected and analyzed data also indicate that the best developed area of the quality culture is management commitment to quality, while the least developed area is employee recognition and rewards for quality, followed by the low opportunities for employee involvement in quality initiatives.

As for the cultural profile of the company, the ten dominant values are: Clients as first priority, Duty, Discipline, Effort, Quality, Respecting rules, Personal availability / work, Personal involvement / work, Continuity, and Openness to the environment, indicating a strong connection to quality. The values that are the least representative for the company are: Risk-taking, Tolerance, Forgiving mistakes, Impartiality, Will to be number one, Personal fulfillment, Anticipation, which can deter the development of a quality-driven culture.

It can be concluded that although the company creates and maintains the awareness of quality, and the top management team is committed to quality, the quality culture is not supported and enhanced in by organizational and practical measures. These organizational domains indicate the weaknesses of the management process, and also the main areas for future improve-

ment. Given the characteristics of the company workforce, the future cultural shifts will be difficult to implement, will face significant cultural resistance, will need intensive training, and long-term, slow-pace implementation.



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STRATEGIC SYNERGIES OF LOW-COST AIRLINES

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Abstract

Based on the finding that the market of the low-cost carriers is constantly growing and changing, the paper presents some of the strategies adopted by the companies in this industry, with exemplification on Blue Air's business model, achieving an analysis of the strategies implemented by the company in the last five years. In the mentioned period, the company has undergone major changes in shareholding, which resulted in significant strategic changes.

Keywords: low-cost airlines, organizational strategies, competitive strategies, functional strategies

1. Strategies Implemented by Low-Cost Airlines

European air transport industry is going through major changes. At present, network carriers are facing strong competition from low-cost carriers. They now represent 40% of the transport capacity offered within the European Union and is expected to increase significantly [1].

Thus, it is estimated that low-cost airlines will increase by 1,4% per year faster than the overall network companies and they are expected to operate 19% of world traffic by 2030. European Low Fares Airlines Association (ELFAA) published a indicating that, in Europe, low-cost airlines could reach a market share of 45-53% by 2020 [1].

Michael Porter's researches showed that two elements underlying the strategies: the attractiveness of the industry (which

> *We all do better when we work together. Our differences do matter, but our common humanity matters more.*
> (Bill Clinton)

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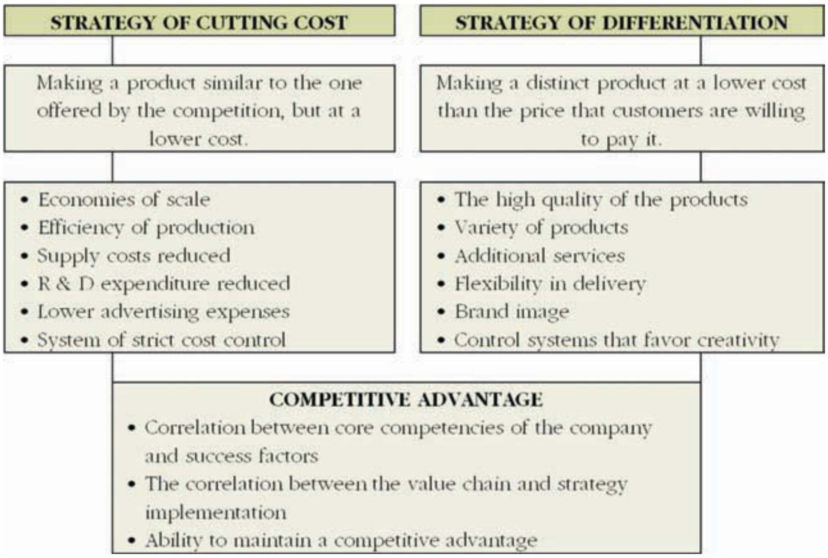
provides efficiency on long-term), and the competitive position relatively within the sector. These strategies, Porter called them generic strategies and in Figure 1 are showed how the generic strategies contribute to the obtaining of the competitive advantage [2].



STRATEGY OF CUTTING COST

Making a product similar to the one offered by the competition, but at a lower cost.

- Economies of scale
- Efficiency of production
- Supply costs reduced
- R & D expenditure reduced
- Lower advertising expenses
- System of strict cost control

STRATEGY OF DIFFERENTIATION

Making a distinct product at a lower cost than the price that customers are willing to pay it.

- The high quality of the products
- Variety of products
- Additional services
- Flexibility in delivery
- Brand image
- Control systems that favor creativity

COMPETITIVE ADVANTAGE

- Correlation between core competencies of the company and success factors
- The correlation between the value chain and strategy implementation
- Ability to maintain a competitive advantage

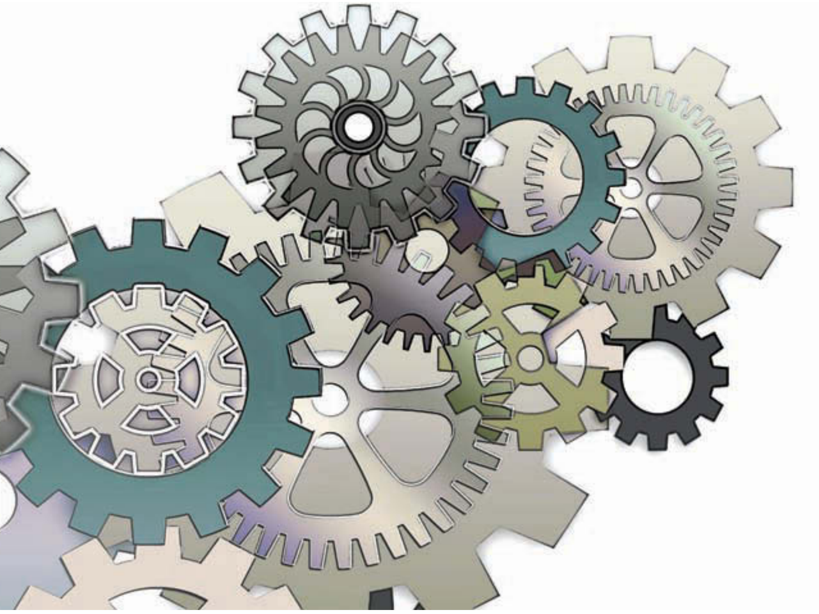
Figure 1 – *Strategies for creating competitive advantage*

In order to meet the challenges and to ensure long-term survival, low-cost airlines should consider the following strategies that could be applied:

Domination through cost. Low-cost airlines should keep the low cost advantage over the traditional competitors that provide full service. Low-cost airlines must ensure that costs per passenger and kilometer are maintained at 50% or more below the costs of the traditional airlines, and also continue to reduce the costs.

Differentiation strategies. Low-cost airlines have to differentiate the product, which is to offer a product with some „frills", which is highly appreciated by customers in terms of providing value for money. For example, Virgin Blue in Australia and JetBlue in the United States of America. Virgin Blue was the first airline that introduced satellite TV in real time during the flight called Live2Air. Strategies of most low-cost airlines aim to attract passengers who bring higher profits and gain advantage through differentiation from other low-cost airlines [3].

Focus strategies. Low-cost airlines must ensure that most of their flight routes occupy the first or the second position in terms of market share. The combination created between low tariff and significant market share makes to occupy a strong position of defense where new competitors try to enter the market, while the solid base of the cash flow allows it to expand in the future.



Southwest's success and survival is due to measures taken during the implementation of growth strategy that focused on occupying the dominance position on most of the markets. It's basically the biggest carrier in over 90 of the 100 top markets [4].

Finally, to be successful, the airlines low cost can use both types of competitive strategies (differentiation and domination through cost), can identify market segments, even if their market may be the entire globe, can even combine the three strategies mentioned above.

2. Strategies of Low Cost Companies

The strategies of Wizz Air airline, aimed at:

in 2012:

- practiced special rates for families through Wizz Xclusive Club program launched in the summer of 2011. Families could book as a small group using membership of Wizz Xclusive Club. Group members had access to special rates for each booking. Number of bookings made by families in the summer of 2012 increased 8% among the members of Wizz Xclusive Club.

in 2013:

- launched the first flights from Craiova, Romania.

in 2014:

- employs flight attendants in Craiova, Romania;
- inaugurates the fifth base in Romania, with four new routes available to customers from Oltenia to – Bologna, Rome Ciampino, Dortmund and Barcelona;
- in January, the company launched a new product: loyalty WIZZ Privilege Pass, which allows holders unlimited priority boarding and large baggage of cabin free on all flights Wizz Air for at least one year. Virtual Ticket can be purchased on wizzair.com, and costs 99 euro;
- in June, the company will launch flights on the route Sibiu – London Luton;
- will allow passengers to use portable electronic devices (PED), such as mobile phones, tablets PC or eBooks on all flights of the company.

The strategies of Germanwings airline referred to:

in 2009:

- from October, the company operated three weekly flights on each of the routes: Bucharest – Berlin, Bucharest – Cologne and Bucharest – Stuttgart.

in 2010:

- ordered eight Airbus A319 aircraft, which preserved the configuration of the existing equipment in the fleet. At that time, the fleet counted up 30 aircraft.

in 2011:

- the company increased flight frequency on domestic routes: Cologne / Bohn – Berlin – 46 flights per week (8 times per day) and to Stuttgart – 42 weekly departures (7 times per day);
- introduced new routes to Pristina from the following airports: Düsseldorf, Munich, Stuttgart, Hamburg, Frankfurt, Cologne / Bohn, Hanover and Berlin-Schönefeld;
- the passengers of the first ten rows on flights Airbus A319 received the Best Seat service – a larger space of travel;
- all the company flights can be combined with Lufthansa flights;
- moreover compared to the evening flights were made also morning flights for those who leave on business issues [5].

in 2012:

- the company launched the Miles & More program, with Lufthansa. Passengers, who earned miles in flights operated by Lufthansa, could use them within the flights operated by the low-cost carrier Germanwings. Customers who own Miles & More could gather up for an internal flight to 1,000 miles and for a European destination to 1,250 miles [6].

in 2013:

- in summer, the company received aircraft from Lufthansa;
- changed their logo thus it used the stylized letter W with the colors purple and yellow;
- there were developed booking and information systems through mobile phones;
- in July, they released a new concept of brand and product, introducing flight packages configurable Best, Smart and Basic;
- Best package: passenger has booked a place on one of the first three rows in front of the aircraft, enjoying 81.2 cm distance between the seat and an empty seat between him and the next passenger. Best Package includes access to Lufthansa lounges, priority to registration, using fast lane for security checks, adding miles through the „Miles & More” and HON Circles is able to carry twice the usual luggage allowed (in two pieces of baggage of 23 kilos each) at no additional charge, catering

products at choice in aircraft, a flexible schedule and to reschedule the bookings and opportunity to cancel the tickets. Best Package is available on all routes in Germany and in Austria, Switzerland, Belgium, Russia, France and Britain;

- Smart package: It is the standard package and corresponding to an Economy product of the conventional type. Passengers who opt for this package can reserve a seat in the front rows of the aircraft; they will enjoy the 81.2 cm distance between seats. Smart Package includes snacks and soft drinks and the opportunity to carry a baggage of 23 kilos at no extra cost;
- Basic package is the least expensive and corresponds to the low-cost conventional product. Those who choose this package gives up free catering services and at the possibility to carry luggage for free and can choose a seat located on the eleventh row or at the back [7].

in 2014:

- Lufthansa Group, which includes: the air operator Swiss – Swiss, the German low-cost company – Germanwings and the Austrian airline operator – Austrian Airlines, has appointed a new general manager for Romania and Moldova.

The strategies of Ryanair airline aimed at:

in 2013:

- in September the company settled up a team that answered to the customers' e-mails;
- stopped unpopular practice to fine the passengers whose luggage exceeded the limit provided with few inches;
- supremacy in Europe, many European passengers preferred to fly with the company;
- at the end of the year, the top management has reformed the organizational culture based on occupying a strong position (81 million passengers in the past 12 months, a load factor of 82%) [6];
- signing a strategic partnership for a period of five years with the International Airport „Transilvania” from Târgu Mureș, is achieved through the introduction of two new routes to Brussels and Pisa which operate with a frequency of two flights a week, the price being of 28 euro. Development potential due to the over 30,000 passengers that will use the airport in Târgu Mureș;
- within Romania, the company only operates in Constanța.

The strategies of easyJet airline referred to:

in 2009:

- The network Easy Hotels owned by the operator easyJet low-cost, includes 10 units in the UK, Hungary, Switzerland and Cyprus. By January 2010, in addition to the location in Sofia, the company plans opening two new hotels in Dubai and Berlin. The hotel in Sofia has 57 rooms, 9 floors, and the price of a room starts from 10 euro.

in 2012:

- The airport charges from Otopeni and the demand reduced were the main reasons that drove easyJet out of Romania. In a time of crisis in which the air traffic was low in Europe, the company gave up the two routes to Madrid and Milan and decided to invest in other destinations.

in 2013:

- identified breaches to reach on the main airports;
- was present in 14 of the 20 major airports in Europe;
- oriented towards attracting corporate passengers through operating more flights to and from major airports, located close to the business centres such as London, Paris – Charles de Gaulle, Geneva and Rome – Fiumicino [6];
- returned to Romania, with a route Bucharest – London, which in the past has not worked well and was cancelled.

easyJet
easyJet.com
G-EZIK
easyJet

In conclusion, the present low-cost airlines are implementing different strategies such as: introducing new flight routes, increase frequency on existing routes flight, launching customer loyalty programs (Miles & More, Wizz Xclusive Club etc.), the introduction of additional services that allow, for example, the use of portable electronic devices (PED) during the flight, signing strategic partnerships with airports, fleet modernization, improving company image (by changing the logo), the introduction of flight packages configurable etc.

3. Blue Air Airline Case

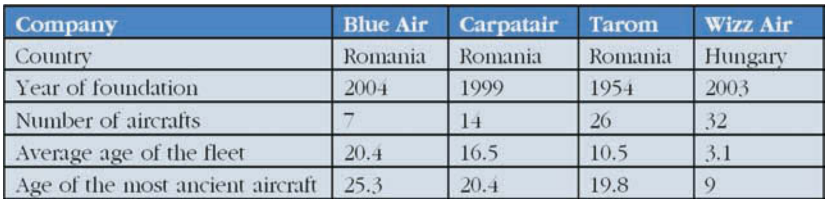
Blue Air is the first Romanian smart flying company, which celebrated nine years in business in December 2013 and awarded a bonus to the passenger with number 10 million. For 2014, Blue Air estimated 1.5 million passengers; the main objective of the company is the reinforcement of the existing European destinations. Blue Air has started with two aircrafts, four flight routes and 35 employees on 13 December 2004; it was founded out of a desire to create a company that provides affordable travel.

The fact that the majority shareholder of the company Blue Air, Romstrade Ltd was insolvent on 10 December 2012, which became the major issues of image and funding for the management of the company preoccupied of the destinies of 450 people, and the decision was simple: the need of finding new shareholders to the company in order to develop and to outline a long-term strategy.

As a result, the air carrier Blue Air was bought by SC Blue Air – Air Management Solutions SRL, a Romanian-Belgian joint venture has started operations under new management since August 2013. Airline Management Solutions took the goodwill of Blue Air, a transaction amounting to 30 million euro, which includes the assumption of obligations of 28 million euro.

Thus, SC Blue Air – Airline Management Solutions SRL took over a dynamic company, distinguished on the low-cost carriers market in 2009-2013 through a variety of strategies that emphasize the company's orientation in many directions which indicates the wasting of the effort (see Table 1). This was possible due to the shareholding consisting of a single person, which until that time had profitable business in the civil engineering industry.

Table 1 – *Blue Air's Strategies in 2009-2013*



Company	Blue Air	Carpatair	Tarom	Wizz Air
Country	Romania	Romania	Romania	Hungary
Year of foundation	2004	1999	1954	2003
Number of aircrafts	7	14	26	32
Average age of the fleet	20.4	16.5	10.5	3.1
Age of the most ancient aircraft	25.3	20.4	19.8	9

As can be seen in Table 1, the following symbols were used:

- *SO Strategies* that use strengths (S) of the organization to benefit from the opportunities (O) identified in the environment,
- *ST Strategies* that use strengths (S) of the organization to mitigate the effects of threats (T) occurring in the environment,
- *WO Strategies* to avoid manifesting weaknesses (W) by using the opportunities (O),
- *WT Strategies* aimed to avoid the weaknesses (W) of the company by identifying the impact of threats (T).

4. New Strategic Approaches of Blue Air

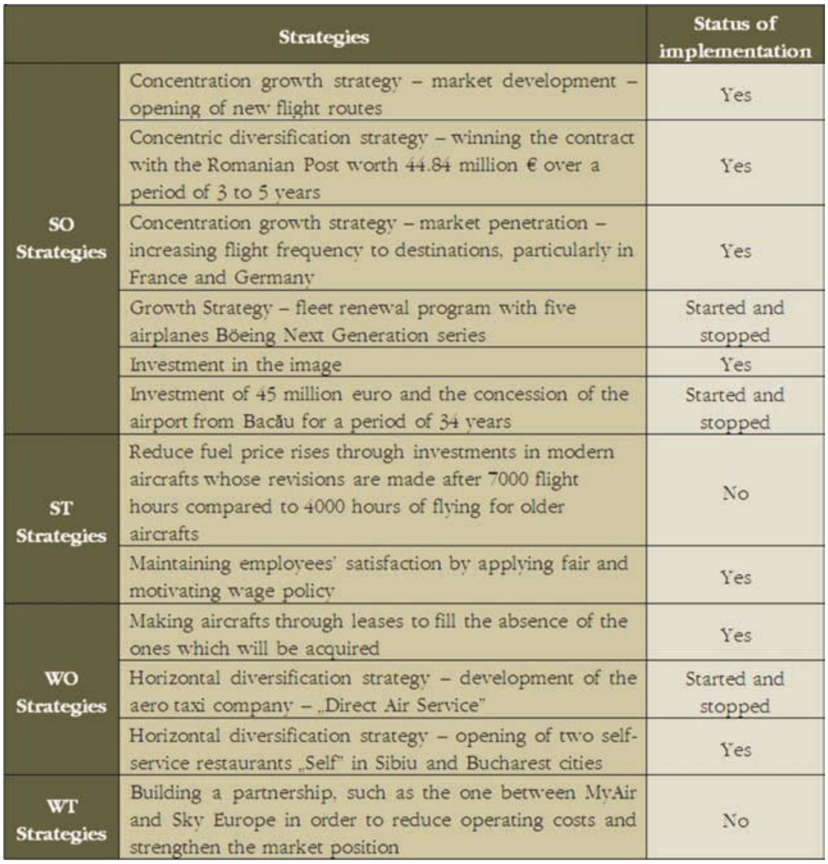
4.1. Strategies related to endowment

In 2014 the fleet will increase by two aircrafts, and Blue Air will operate flights with a total of eight airplanes. For the first time in the company's history, two of these aircrafts will be owned by Blue Air, the remaining 6 will be operated under operating leases. Already in February one of the two airplanes is operational. The aircraft, with an age of 22 years, the Boeing 737 series 400 has a capacity of 170 seats. However, it is obvious that the company Blue Air is far as equipment fleet level (as number and age) of competitors (see

Table 2) even compared to other Romanian companies and reported to external the competition gap is more obvious for example, the competitor Wizz Air has a four times larger number of aircrafts and an average age of the fleet of 3.1 years virtually unbeatable compared to 20.4 years.

According to economica.net, citing database Planespotters.net, Blue Air was listed in July 2013 in fourth place into the world ranking of low-cost airlines which flying with ancient aircrafts.

Table 2 – *The airlines' fleet (data from 2011)*



Strategies		Status of implementation
SO Strategies	Concentration growth strategy – market development – opening of new flight routes	Yes
	Concentric diversification strategy – winning the contract with the Romanian Post worth 44.84 million € over a period of 3 to 5 years	Yes
	Concentration growth strategy – market penetration – increasing flight frequency to destinations, particularly in France and Germany	Yes
	Growth Strategy – fleet renewal program with five airplanes Böeing Next Generation series	Started and stopped
	Investment in the image	Yes
	Investment of 45 million euro and the concession of the airport from Bacău for a period of 34 years	Started and stopped
ST Strategies	Reduce fuel price rises through investments in modern aircrafts whose revisions are made after 7000 flight hours compared to 4000 hours of flying for older aircrafts	No
	Maintaining employees' satisfaction by applying fair and motivating wage policy	Yes
WO Strategies	Making aircrafts through leases to fill the absence of the ones which will be acquired	Yes
	Horizontal diversification strategy – development of the aero taxi company – „Direct Air Service"	Started and stopped
	Horizontal diversification strategy – opening of two self-service restaurants „Self" in Sibiu and Bucharest cities	Yes
WT Strategies	Building a partnership, such as the one between MyAir and Sky Europe in order to reduce operating costs and strengthen the market position	No

Source: Adapted after [5]

The increase of the number of aircrafts will allow Blue Air to reactivate the charter segment through strategic partnerships with travel agencies. In 2013, Blue Air operated on 25 European routes. At the same time, jobs were created.

4.2. New services implemented after takeover

Change of the catering service by introducing of sandwiches that are specially designed and manufactured by the famous chef Jakob Hausmann, and the inclusion of new drinks that are of premium quality.

Launch of the Pre-Flight Reminder Service whereby each passenger Blue Air receives a customized newsletter with 2 days before date of travel, information that includes general information about travel, detailing optional services selected by the passenger.

Check-in activation system common to all flights departing from Henri Coandă International Airport (Otopeni) – the procedure reduces the waiting time of passengers, before travelling by air. Connection of Blue Air flights with the integrated land transfer between Bucharest and Constanța, which will make Blue Air destinations much more accessible. This new shuttle will be available soon from Brașov also.

Implemented various methods of payment alternative for passengers who do not possess a card (bank transfer, cash deposit, ZebraPay or Qiwi terminals).

Signing the partnership with Hahn Air, for developing distribution by GDS (Amadeus, Travelport, Apollo, Sabre, Sirena). As a result of this partnership, more than 190 countries can sell Blue Air tickets, with settlement of accounts by the IATA-BSP (Billing and Settlement Plan). By the Hahn Air, Blue Air is automatically an interline partner with over 250 other airlines and becomes a link in the global air transport system.

Launching the „#zbor" project which allows customers that in just 30 seconds find out which is the cheapest flight to desired holiday destination, within 30 days. [7].

4.3. Marketing Strategies

Blue Air has adopted a new marketing strategy embodied by the contest „Get rid of your boss", a project which is, in 2014, on its second deployment, and its motivation is that employees of the companies in Romania need vacation and relaxation to be more productive.

The competition rules (the original version): To take part in the contest, employees must enter the website of the contest, to create and give a name of the virtual airplane, to choose one of the Blue Air's destinations where they want to travel with the team of the office and invite colleagues to come on board. It's important to register the chiefs and to mention why employees want to get rid of them. When they are eighteen plus the head of department/service, the team is complete and the head of department/service will find out that team members need a vacation, but he has only a single ticket, no accommodation and no return.

For more chances to the three prizes of the game participants are invited to make a film as original with their message to the direct supervisor. Subsequently, they have to distribute the movie link on the Facebook page of the contest so that the acquaintances to vote for them. Three winning teams will be designated [8].

Among the prizes are found: tennis vouchers, vouchers at maintenance saloons for body treatments, fitness and aerobics sessions and massage, mobile internet cards, a dart board, vouchers for hooverland and lasertag, cameras.

First prize winners of the first edition, which held in 2012, were directed to Barcelona.

The project was extremely well received both by the employees and by the customers, and it was decided to continue with few changes such as: reducing the team from 18 to 10, the possibility that the head be formal or informal and diversification of the awards. Thus, the boss may be from the office, a friend who has ambitions of manager, the mother in law or a friend who always imposes his or her point of view, or simply anybody who needs some action. Besides the flight ticket, the boss gets a camera and a GPS, the explanation being that he or she can more easily find the way to home – highlighting the most entertaining aspect of the campaign.

Conclusion

The main problem of the company, namely, the arrangement of the funds remains today, even though they have tried over time various financial makeshifts. SC Blue Air – Air Management Solutions Ltd. succeeded in only eight and a half months to collect debts to the state budget totaling 1.76 million lei.

Blue Air
BlueAirweb.com

This is due to the lack of a strong investor, credibly, that ensures the sustainable development of the company. According to the National Office of the Trade Register (NOTR), the shareholders of the company are four Romanians of which 3 are employees of Blue Air, which makes anxiety persistent. However, the managerial effort of the top management seeking creative solutions and formulating viable strategies directions realistic, current, grant big chances to succeed in the future. This must be completed by a substantial reduction in the company's business portfolio.

None of us
is as smart
as all of us.
(Ken Blanchard)

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SOCIAL POLITICS IN EUROPEAN ENTREPRISES

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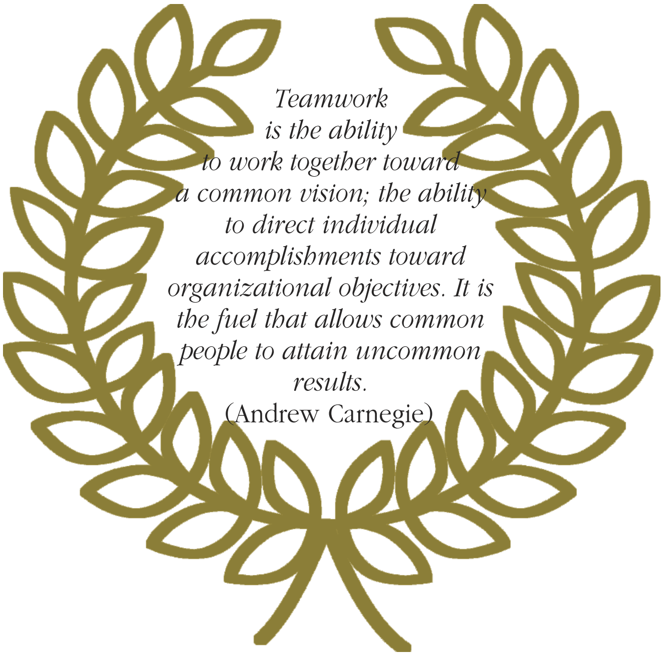
Abstract

In the beginning of the 21st Century, the civilized world was different from twenty-five years ago. The separation of Europe stopped and after the Berlin Wall crumbled initiated the European Integration and Building Process. The foundation of the European idea lays in the culture of the population of the continent, a foundation which is overflowing the very geographical bounds of EU. The security and the harmony of common economic politics and common legislation in EU countries has encountered many obstacles, and is further at risk especially meanwhile extension process. The authors intend to analyze only one aspect on the European Integration and Construction Process: the effect of social politics.

Keywords: European construction, social progress, European Convention of Human Rights, social politics

INTRODUCTION

Nowadays, the idea of European is part of the culture of most populations of the European continent, over passing the current geographical boundaries of the European Union [1]. The passing from the idea to some valid institutions implies some difficulties. The situation of the present-day Europe, leads to the creation, and maybe resuming of a political community project that leads to something more than the single market. „However, first one must ensure the modification of the European institutions and renounce the recommendation regarding the adjusting by extension.



Teamwork
is the ability
to work together toward
a common vision; the ability
to direct individual
accomplishments toward
organizational objectives. It is
the fuel that allows common
people to attain uncommon
results.
(Andrew Carnegie)

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This is the result that the initiators of the European Constitution project hoped to obtain by proposing it to the nations for ratification". The expected result doesn't seem to be reached and the conclusions that can be drawn from this failure are not maybe the best for the future of the European construction.

CONCERNED PROBLEMS

Shortly after the result of the French and Dutch referendum that refused the proposal concerning the European Constitution, the first reaction of a large number of European leaders was to ask for a respite to the Union extension. Or, such a position seems to be a fake debate allowing eluding the real problems that need answers in order to continue the European construction.

1. Fake debates

More than the inadequacy of the existing institutions or the rejection of the proposed ones, the difficulties encountered in matching the legislations and applying the politics are real obstacles for that part concerning the difficulties of cohabitation of very different legal systems, sometimes having antagonist approaches, that initially came from economical reasons in the sense of developing a market economy. This fact is best seen in the field of social legislation. Indeed, if the social progress was one of the Rome Treaty objectives, it was forgotten by those who had the duty of the European construction in a frame of community institutions and of the creation of the current political strategy of the European Union characterized by subordination at the globalization imperatives that can be refused, as suggested by the failure from France or from the Netherlands of the referendum concerning the constitution project. They are preoccupied from now on realizing, in an unceasing rhythm, a market economy at the European Union level or even of the entire Europe and could be tempted to replace if needed a debate on what Europe is supposed to be in order to have a proper future, with another debate regarding the extension issue [2]. A postponing of the European extension process could not solve the difficulties that Europe must face now. Some results of the two referendums in France and in the Netherlands have seriously troubled the ratification process of the Adherence Treaty and have distorted and complicated the discussion about the future of Europe.

2. The real debate is still in progress

The difficulties come first of all from the economical options in favour of the market economy that was one of the pillars of the European construction project proposed to the electors from different member states. As mentioned above, it is clearly seen in the social legislation field. Indeed, the social progress was forgotten, although it was one of the objectives of the European Union founders.

THE SOCIAL ASPECT

Indeed, if the social progress was one of the objectives of the Rome Treaty, it was forgotten and replaced by realizing, in an unceasing rhythm, the market economy at the European Union level, or even at the level of the entire Europe, the European constitution project only confirms these things. The constitution project does not mean to reverse the tendency of encouraging optimism at the level of the public opinion, out of which many people don't see in the liberal European constitution, but the pressure of social expenses in the name of the „stability pact", the blows on the public services in the name of the free competition dogma, the headstone of the constitution, the de-location of enterprises in the name of competitiveness.

Beside debates on functioning rules (the majority qualification, reinforcing of the cooperation, the number of commissioners, the Union Presidency), the agreement obtained at minimum leaves everything in the hands of those who saw the integration only from the social point of view. This attracts negative reactions or restraints regarding the perspectives of its approval.

Certain responsible found this text incompatible with „social Europe". The project of the European constitution was presented as the document that allows the elimination of the Nice Treaty imperfections; it is for ever and irreversibly anchored for the European Union in an over-liberal economy, turning the back on the old founders.

At the moment of the highest-level conference from Nice, the heads of the states and of the governments of the states of the European Union closed the conference by congratulating the united proclamation of the Council of Europe, of the European Parliament and of the Commission of the Fundamental Rights Charter of the Union, which gathers in the same text civil,

political and social rights expressed so far in different international, European or national sources. The European Council recommends encompassing in the charter the highest possible diversity following the one of the Union's citizens [2]. All European institutions participate in the proclamation of a text.

1. The Social Politics of the European Union and the Social Progress

Still, ever since its proclamation and even before it, an important number of potential „Beneficiaries" were very concerned regarding its contents and possible lacks. For instance, regarding the union right, it was not explicitly mentioned, it vaguely appears in the collective negotiation right. The latter being reduced to only one paragraph dedicated to solidarity. This fact contributed to huge recoil, especially reported to what it already existed in the matter, for instance French rights and Italian and many other national rights in the member states of the European Union. But above all, the essential, that is the issues concerning the legal aspect and so their capacity of being effectively respected and their infringements punished, were reserved.

Indeed, the „highest level conference" [2]. So, the result of this proclamation was a document with no legal value and with an ambiguous significance.

Later, the highest level conference from Athens regarding the Union expansion didn't work on granting it a respective legal value that the social law specialists and the citizens waited for. It will have to be integrated in the constitution which in fact constitutes only a very relative progress and the constitution project didn't allow the advance over this point. Appealing as well to those who would have wanted to forget that if social progress was a founders' objective, who saw it as a automatic result of building a market economy on Europe foundation, it is nothing more than a community law objective whose ambition is reduced today to ensuring a minimum of social protection meant only to limit the worst effects of the quasi-total liberalism that became fundamentally essential, the only way, of the market economy in the progress of being built at the basis of the European Union [3], and where social Europe cannot be built but on the basis of at least saying social and of denying the social progress which is no more part of the European Union objectives for a long time. Nevertheless, it is from now on clear that economical freedom does not spontaneously generate social progress.

2. The Social Progress is no Longer an Objective of the European Union

From this point of view, it is not less important that at the origins of the convention meant to prepare the European constitution, the social Europe is not part of the ten working groups designed to perfect the document. This group wouldn't have been added eventually, reminding the ones who forgot it or who wanted to see the social aspect only as secondary in the European constitution. The document before the constitution project in question doesn't leave any hope. The social aspect appears as the great absent. The paper presenting this text has 300 pages out of which less than 10 are dedicated to it and even wasted since the expression „social progress" is used only twice all over the paper.

Certain enterprises responsible understood well the entire profit they could have on the text and from the spirit before the European constitution project. In these conditions, how could we convince the employees of Europe's benefactions with the free capital and people market? In such conditions, social progress may exist, especially by the effect of a jurisprudent interpretation in favour of the employees, possibly but uncertain from the texts, coming from community norms, but also from others inspired from the judges outside it, but applied to the co-nationals from the European Union, especially in the international texts consecrating the human rights [3]. It is true that the text before the European constitution project provides the possibility, that didn't exist in previous treaties, for the European Union, as the one appealing to international instruments. For the moment it is considered only the adherence of the European Union to the European convention of human rights, which is a certain progress, but in the social right field, it represents only a minimum. In this area, the way towards the social progress is measured by the capacity of states and populations concerning the impelling on the European Union leaders the adherence to international organizations in order to promote the social progress, especially in the International Labour Organization, and to international conventions containing texts that state social rights so that it allows real social progress and means to punish their infringement.

cooperation

With the Charter of fundamental social rights, even with the European constitution, we are far from the speeches of the founders, since Europe's leaders don't chose a market economy where man's place becomes secondary, which is exactly the opposite of what proposes the text before the constitution project, market by the pre-eminence of the market economy. Indeed, contrary to the appearances, the debate is more economical than legal.

MARKET PRE-EMINENCE

As far as social politics is concerned, after introducing the single currency euro, the limits of control that the states were disposing of, are reduced becoming insignificant, almost inexistent. Or, in this area, the construction of Europe puts on the first place, in the larger sense, the introduction of market economy as opposed to social progress. We recommend that the expansion of Europe, to be the starting point towards a return to the sources, allowing the accomplishing of founders' wishes that Europe will be characterized by the harmonization of legislations in the sense of social progress. Nor did the project of the European constitution. It leads to the integration of Fundamental Rights Charter in the Constitution and allows the having in view the adherence of the European Union to the European convention of Human Rights which doesn't mean but a mere recognition of the social, that incriminates even more by contrast the market pre-eminence.

1. The convergence criteria

Today, in the frame called globalization, which is after all only an attempt to impose the ultra-liberalism at the level of the planet [4], the priority consists of competition by reducing the labour expenses. In Europe, it is translated, at the level of the European Union, by the introduction in the name of «convergence» of the criterion that an economist explained as being outdated [4] and that people in charge in the European Union not only foresee it as a suppression, or at least an arrangement, but also they come across the resistance of those in charge in the European Union. So, two of the founding countries of Europe, France and Germany, united in not respecting one of the criteria and the developing difficulties, obtain an advantage, which from tomorrow inducts an immediate answer from the commission in the form of hostile reactions, a little bit later an intimation of the European Justice Court.

2. Criteria Consequences

These criteria provide that the states do not control entirely or partially certain instruments as the exchange rate, the interest rate, the budgetary deficit, tools necessary for the implementation and optimization of a particular social politics. In these normal legal conditions that a state recommends to be implemented influence less as compared to the imposed economical aspects and even to be found questionable. Within the unique market where economical policies are not independent anymore, the only correction variant remains the labour market, see the cost of labour, the one which will introduce a high unemployment rate in certain European regions. The pre-project of the constitution is nit able to incriminate, «the logics of competitive un-inflation induced by the Maastricht treaty is wrong about the enemies, the essential enemy is not only the inflation but also unemployment», as the scheme below also shows (Figure 1).

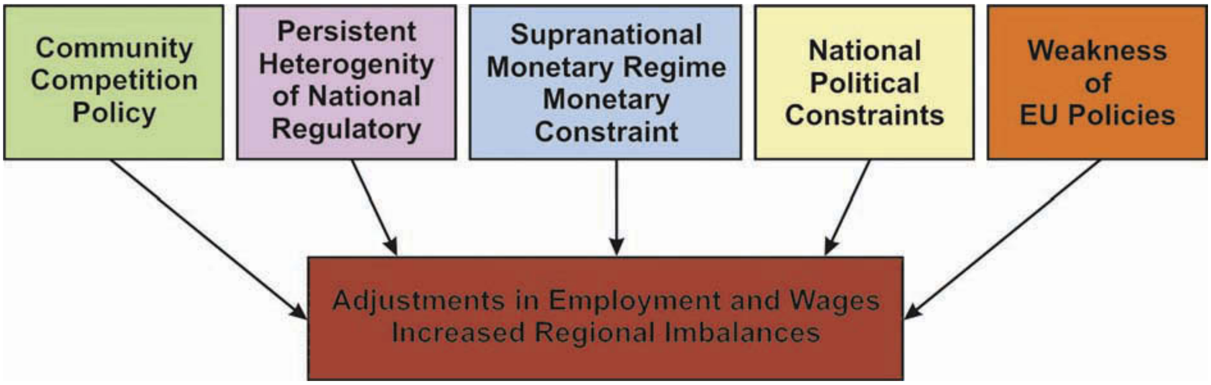
Community Competition Policy
Persistent Heterogenity of National Regulatory
Supranational Monetary Regime Monetary Constraint
National Political Constraints
Weakness of EU Policies
Adjustments in Employment and Wages Increased Regional Imbalances

Figure 1 – *Social Level Problems*

There can also be recognized certain base elements of the neo-liberal thinking propelled by Friedrich von Hayek. For instance, even from the start, in The Road to Serfdom, von Hayek explains: „It is the replacement of man with impersonal forces of the market which, in the past, made possible the development of a civilization without which this one couldn't have developed; even by this replacement to which we all participate every day, let's build something more, that we all could fully understand" [5].

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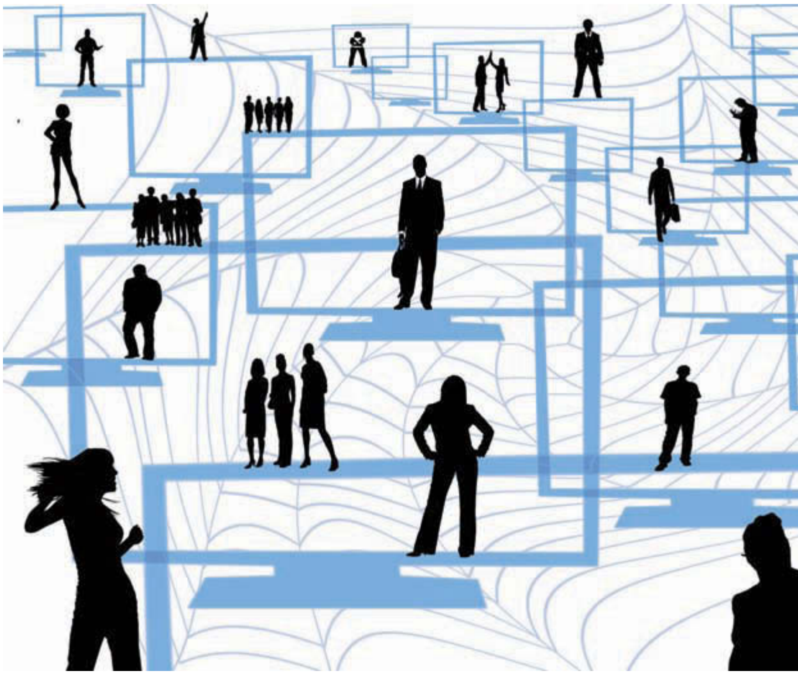
From this thinking, three main postulates of the Hayekian liberalism result:

1. The entire future progress requires that individuals obey „impersonal forces of the market" (eg. prices system). The prices system informs on the social, economical and political activity and is in the essence their „absolute" reference. Corollary to this fact, to fix a price (or a salary) by law or by a union agreement, without obeying the impersonal forces of the market, will undoubtedly produce negative effects superior to the expected positive ones [5].
2. The capitalist market is an ensemble of mechanisms functioning spontaneously ensuring a neutral, impersonal coordination beneficent for everybody. It is to be retained that everybody means only that the social interest must be preferred to individual aspects, but, in the same time, if liberalism presents a risk in evidencing the fact that inequalities are increasing, the capitalism is, at a global level, the best system in the overall production of well-being.

We are incapable to understand the functioning of the system as a whole (in the sense of reasonably apprehend its complexity). It is always «something bigger than what we can fully understand» [5]. Therefore, how can we plan efficiently (as the socialist theory envisaged) something that exceeds our expectations? Friedrich von Hayek expresses his concepts in a chapter title of his work The Fatal Conceit: „On what cannot be known cannot be planned". („There is not alternative")! How he would have liked to find some political figures with whom he confronted in their reasoning since the Berlin Wall fall.

Conclusion

There are, therefore, two ways of thinking Europe, seeing it as a vehicle of liberal globalization or as a work for the construction of an authority ensuring its autonomy reported to United States, but if the project is political, we will notice that the instruments are economical.



Ultimately, two logical theories are confronting, leaving competition to manifest itself and the harmonization supported by contagion to be seen (the arrangement being made credible by the only labour market and, so, by „stocking"), preferring a harmonization by supranational coordination which will determine social rights at a minimal level. It seems that the lack of political will and the liberal inspiration (Italian or English, for instance) that is noticed before the European Constitution project leads us more towards the first alternative: „to let it flow" but no seeming to be appropriate for the expectations of the involved population. This makes the construction of a certain Europe an impossible mission and compels to reflect on the implementation at the level of the entire Europe of the institution which should be of high economical performance, taking into account the rightful aspirations of nations for a more social Europe, which makes us think the after-liberalism.

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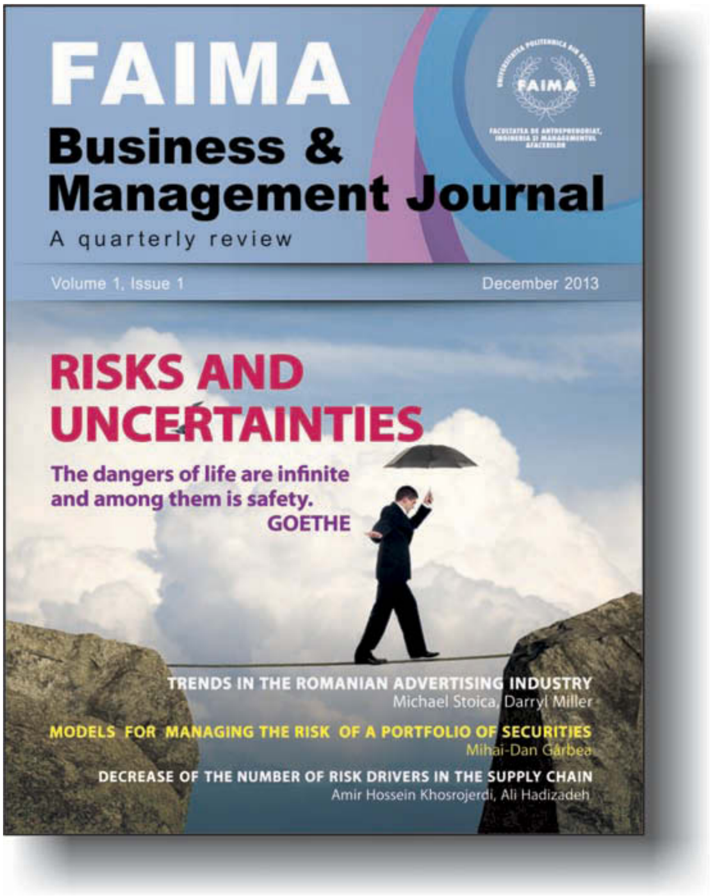

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The dangers of life are infinite
and among them is safety.
GOETHE

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Quality is never an accident.
It is always the result of intelligent effort.
JOHN RUSKIN

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