THE ENVIRONMENT -A CRUCIAL COMPONENT OF LONG-LIVED UPSURGE IN THE EUROPEAN UNION

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Abstract: *Environmental Community Policy aims at upholding long-lived development and at preserving the natural setting intact to the very benefit of both the extant and the yet unborn generations. It goes upon integrating environmental protection into the remaining Community Policies, taking staving-off steps, observing the "damage paying polluter" principle, fighting environmental pollution at its factual origin and partaking of charges. The acquis communitaire counts in over 200 regulative settlements which cover such areas as: the horizontal legislation, fouling and air-defilement issues, waste and dry-salter management problems, biotechnology, environmental protection, industrial defilement and risk management problems, noise-protection routines and radiation-defence systems.*

Keywords: *European Union, Community Policies, environmental acquis, environmental aspects*

Jel Classification: *F - International Economics, F1 – Trade, F15 - Economic Integration*

The complying with the *acquis communitaire* rules may be looked at as requiring significant investments; however the result is to be highly benefited by the health-care system and derives in reducing the expensive defacing of buildings, and the costly damage to forests, natural settings, fishing areas and so on. In view of implementing and enforcing the environmental acquis, the existence of a stark and a well-equipped administration at the local, regional as well as national levels has definitely to be considered as an indispensable issue.

Romania made some progress in transposing legislation and advanced in implementing and enforcing it. It did particularly take steps in planning and strengthening its administrative capacities in this specific area.

As for the integration of environmental aspects into the other policies, there could not be noticed any significant progress. The Inter-Ministry Board, which was set up to coordinate and sanction sector policies and strategies, did convene only once within the period of reference.

Horizontal legislation witnessed the ratification of settlements aiming at E.I.A. (Environmental Impact Assessment) procedures and S.E.A. (Strategy for Environmental Assessment) directions. A public-counselling conduct followed by an implementing guide was also established.

Air quality was also paid a great deal of interest, and this domain recorded an upsurge, especially with the endorsement of the legal settlements that were to implement aspects regarding the sulphur content of oil fuels, the instituting of surveillance authorities, the emissions of volatile compounds together with the conditions for marketing gasohol and diesel fuels. A preliminary air-quality assessment was made and a network monitoring the same air quality was set up with concern in certain agglomerations. The procedures to be further used in working out and implementing air-quality management plans were promulgated and then followed by the national strategy and the national plan of action to protecting the atmosphere.

The **waste management** sector witnessed the ratification of normative settlements regarding waste transport and technical settlements concerning farming refuse. The national strategy and the plan of action in the waste administration sector municipal dumps could also be noticed to have been the subject of an accurate updating. The Ministry of Environment and Water Management was assigned to and held responsible for the waste transport activities. The closing and rebuilding of extant dumps along with locating new ones are being considered at the moment.

Water Quality Standards were observed as well, in so far as the Water Management Law was emended to comply with the Frame Water Management Directive, and the legislation concerning drinkable water founts was itself subject to further emendation. There were also sanctioned several regulative settlements with respect to the integrated system monitoring nitrate pollution and to upholding farming pollution monitoring programmes. Rules and regulations on monitoring water quality standards were also enacted and aimed at perilous substances as well as at the water bottling hygiene. Considering urban water purifiers, Romania did plain fully make use of its adaptness to enlist its entire territory as a tender area. Several agglomeration-concerned plans of action were indicted along with an assessment of the present infrastructure used in transporting polluted water. A whole

methodology was worked out in so far as the marking of critical nitrate-polluted nearby water areas was concerned.

As for preserving the **natural setting,** one might notice the progress made in setting up the Nature 2000 Network and in transposing regulative settlements specific to the field at issue.

Industrial pollution and risk management may be as well on the spot, as the ratification of rule-implementing settlements, including here the remittance of integrated environmental clearances or licences, ought to be approached in terms of progress.

The inventory of verifiable outfit services and of merged pollution-obviating operations was re-examined, and a minutely-detailed assessment of the respective outfitting was also accomplished. A first drill in elaborating a record book of all polluting effusions was also completed.

The study of **chemicals and genetically altered organisms** knew a certain development as well. Several regulative settlements concerning ozone non-friendly substances were enacted, and the updated national programme to be used in removing these substances was also ratified.

The noise sector may also be dealt with in terms of progress. An assessment of environmental noise was proceeded to, along with identifying urban agglomerations, highways, railroads and airports considered as relevant to this particular point.

Nuclear safety and the **protection against irradiation** ought obviously to be connected to progress as a series of brand new specific settlements were enacted to protect the individual against irradiations. An inventory of all practices involving the ionized alpha exposure was worked out, together with drawing up a data basis to use in issuing authority clearances and allowances to transport radio-active materials.

In **administrative capacity** terms, one should point out that, in the last year, the environmental sector was affected by major institutional changes. After having merged with the Ministry of Agriculture in June 2003, it was in March 2004 that the Ministry of Environmental and Water Management was reconstituted as a separate entity. The National Agency for Environmental Protection and the light regional environmental agencies were set up to function in the same period, and the National Environmental Police was reorganized in 2004 as a control and surveillance authority.

Regarding the horizontal legislation, it is worth mentioning that environmental impact assessment procedures have been taken for workable yet, the

quality of impact assessment issues being notably improved. Nevertheless, the transposing of Community Regulations on environmental impact assessment must be carefully completed, hence the necessity of instructing and training operating authorities that are held responsible for this area of activity.

Air quality is further to be referred to in terms of completing the process of transposing Community Settlements that concern non-driving engine emissions. A whole range of air quality assessment operations must be completed, and the implementing plans, the same as the monitoring systems, ought to be worked out and enforced themselves.

Waste management sector is to be thoroughly reconsidered in terms of completing and harmonizing legislation, as far as waste dumps, crock vehicles and electronic or electric waste outfitting are concerned.

Law enforcement is another sector to reconsider by strengthening national and municipal management capacities, so as to ensure a proper inter-authority co-ordination. The national waste management plan along with its regionally-corresponding programmes must be approved; a series of waste collecting systems must be set up, and the enacting of several easy terms in restoring and depositing waste materials has be considered accordingly.

Regarding the quality of water, one may notice the urge to finalize the introducing of the *acquis communautaire* in discharging dangerous substances in surface water flows. As to the law implementing process, the focus is on the need to complete the working out of inventories and programmes as well as the elaboration of monitoring systems.

The national surface water quality monitoring network will spread so as to ensure the monitoring of all dangerous substances as well as the matrix diversity in monitoring sediments and dregs, in compliance with the already enforced Romanian settlements, however with restriction to the Danube and to ICPDR sources. The spreading of the above activities depends on the Romanian financial capacities and does, by no means, require special institutional reforms, but only redirecting and resizing the existing institutions at central and regional levels. This is to be achieved by a Government Decision fully intended to re-organize the national surface water monitoring network, co-ordinated by a National Surface Water Monitoring Centre, which is to be subservient to the Central Water Management Authority.

The natural setting protection area has itself witnessed a sequence of data-collecting operations aiming at marking high protection bird-populated territories and the efforts made in working out a catalogue of community-relevant locations to be used in completing the Nature 2000 network afterwards. The ones drawn into the

above topic should first endeavour to grow aware of its significance and then to involve themselves as well as participate in the implementing formalities; management capacities must also be strengthened in consideration of preparing precautionary measures.

As for industry and risk management issues, they witness the need to finalize the transposing process above, especially in dealing with waste cremation operations and with large combustion equipments and volatile compounds derived from organic solvents. Further efforts are necessary to ensure the issuing of environmental licences. A national programme to be used in establishing a top limit of the effusion scale must definitely be worked out. According to European Union regulations, industry is responsible for avoiding the producing of waste and for waste control when total avoiding is impossible.

"Environmental friendly" is not supposed to stand for "opposing industry", but meant to point out the opportunity to stimulate innovation and reduce inefficiency.

Chemicals and organisms having suffered genetic alterations are also to be dealt with in terms of needing to complete biocide-oriented rules and regulations. Further efforts are to be taken as far as ozone non-friendly substances are concerned, including here the risk assessment of extant substances and import-export activities involving dangerous chemical matters.

As for the noise sector, it witnesses the necessity to complete the transposing process bearing on the assessment and management of the environmental noise.

Nuclear safety and alpha protection are in terms of completing the above transposing process, especially regarding supervising radioactive waste transport activities. Romania must integrate the environmental protection requirements into defining and implementing all other extant strategies, as well as promoting long-lived development. In the view of implementing environmental *acquis communautaire* rules, those massive investments, including medium ones, must be ensured.

The European Environmental Commission concluded that Romania must pay a greater deal of attention to environmental matters, it must implement environmental strategies and working programmes, significantly increase financial resources and, finally, it must strengthen its administrative capacity. It has been assessed that, if such a strategy is proceeded to, it will be possible for medium and long-term environmental *acquis communautaire* terms to be transposed. To carry out a proper legal conformity, major investments and an extremely long-term massive

administrative effort are necessary (for instance as far as such legal problems as those bearing on waste water treatment, drinking water management, and waste management and air-pollution factors are concerned).

Romania witnessed a significant progress in limning up its legal enactments to the *acquis communautaire* rules, in most of its environmental sectors and also in making preparations in the view of carrying out a proper enforcement of these enactments. Romania reached a satisfying level of legal alignment and made several decisions in the view of strengthening its administrative capacities. It has begun to enforce policies aiming at implementing the environmental *acquis communautaire*, however a total implementing remained still a major challenge, the investment sector definitely being a case in this point. Romania has required transaction periods for ten directions (concerning the control of all volatile organic compound effusions resulting from: depositing oil, packing activities and packing waste materials, waste depositing activities, electric and electronic waste outfitting, the treatment of town polluted water, the overflowing of dangerous substances in surface water sectors, drinking water quality, forestalling pollution activities and integrated control parameters, air-polluting effusions originated in the industrial activity of large waste-cremation equipments) and for a set of Regulations on waste transport supervision and control operations.

European Union adhering preparations point out to complete the transposing process regarding certain horizontal legislation aspects, along with air quality, waste management, water quality, industrial pollution, chemical substances, noise problems, nuclear safety and the protection against irradiations.

Adhering to European Union standards is not only to help cleaning the environment, but also to set up more efficient industries and to obtain higher value added products.

Even if this process is complex and difficult to accomplish, it will be necessary for each candidate state to adopt these legal settlements and to ensure its capacity of achieving them, in order to comply with the notably strict European Union requirements, before becoming a member.

FREE MOVEMENT OF ASSETS IN THE CONTEXT OF EUROPEAN UNION ADHERER

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Abstract: *The evolution of the European community ideas from the beginning to nowadays shows us the foundations of Europeans construction and its prospect of development.*

The European Union structure and the normative acts system mean a unique institutional frame, which participates at the integration and the cooperation between member countries.

Keywords: *European community, evolution, reform, financially –banking system*

Jel Classification: *F - International Economics, F2 - International Factor Movements and International Business, F20 - General*

1. Introduction

The free movements of assets are an important negotiation chapter near the free movement of persons, jobs and wares.

This work research includes also the payment system through the DIRECTIVE about transfrontier transfers of credit, the finalization of fees and the prevention of money washes.

If some decades ago, the international movement of assets was less important in relation with jobs changes; its first orientation is to finance the lack of poise of current account balance.

Nowadays the movement of assets records the fastest growing up from all types of transfrontier sections.

International repartition of assets determines the rate of exchange, the international rates of interest with their influence on the structure and evolution of trade.

The consolidations and the freedom of assets and jobs markets, determine the perfection of economics mechanism, mobilizing and direction the existing funds (monetary economics) to the productive investments with the support of privatization process.

2. Development of Communitarian Ideas

The European Union liberates the movement of assets in some stages using the directives, so:

- 1960, the biggest amount of long term assets;
- 1962, the spreading on the values titles operations;
- 1970-80, in the context of petroleum crises, the transfrontier wave of assets support, a greatest threatening for the internal equilibrium of countries economics.
- 1986, was the year of liberty for the assets movement and these important aspects have positive effects on the efficient repartition of assets, and so the European Union conquered the trust of many markets.

The new European Union treaty modified the old economics Communities treaty based on the following principles:

- eliminate the assets movement control and the fees (concerning the monetary exchange restrictions);
- some exceptions are maintained about the national security and published order policies, but it is not an extension of monetary policies or rate of interest;
- the exclusion of the general interdiction, but explicit or implicit proceedings authorized.

The experience of the last twenty years means a great development of assets movement. The costs of transactions are low and the attraction of assets involves an intense international concurrence.

3. The reforms' Strategy in the free Movement of Assets Domain

The reform of financially and banking sector is based on a progressive freedom of the current accounts operations and capitals accounts.

Generally, the associated countries of the European Union prefer the progressive liberalization policies beginning with the conservation of the current account. These countries take measures that must liberate the assets fluxes.

Direct foreign investments of the associated countries give the necessary financial resources and contribute to the creation, development and modernization of those productive potentials.

The portfolio of investments supports the development of internal assets markets and contributes to the capitalization of national companies.

In the last years the liberal measurements were necessary in order to attract the foreign assets. These measurements represent an assurance for the integration of the international economies and to promote the development of competition in the financial sector.

Our country came into contact to the benefits that result from foreign investment. The foreign investments is most important than a very strict control of assets waves.

In the 90's, there were established, in our country, new rules about the portfolio investments, that allow the repatriation without restrictions the profit (benefit) from basic investments, and have a good effect for stimulating the investments.

4. Conclusions

The rules about the operations on assets markets, determine the development of the relations with credit institutions.

The penetration of foreign assets in the banking sector and in the interne market of insurance is a continue process.

The opening of financially–banking system to the foreign investments and the integration of this system into the community financially services, can eliminate the barrier from the way to the free competition and represent the firm pledge who Romania has assume in the time of negotiations, with the membership countries.

For the year of adherer at European Union of our country - 2007- is important for Romanian citizen to have equal right with all community citizens. In that context Romania must to adopt new rules for Romanians and for the citizens from Union.

REFERENCES:

1. Andrei, C. Liviu – „*Euro*", Bucureşti, Editura Economică, 2003;
2. Dragomir, Georgeta – *Activitatea bancară şi riscul în economie – coordonate în plan mondial şi naţional,* Bucureşti, Editura Didactică şi Pedagogică, 2003;

3. Dragomir, Georgeta - *Moneda în structuri, comparaţii şi mecanisme*, Galaţi, Editura Fundaţiei Academice "Danubius", 2003;
4. Filip, Gh., – *Adaptarea mecanismelor financiar-bancare la cerinţele integrării României în Uniunea Europeană,* Iaşi, Editura Junimea, 2003;
5. Trandafir, M., – *Pieţe monetar-valutare în România*, Bucureşti, Editura Didactică şi Pedagogică, 2004;
6. Turliuc, V., – *Politici monetare,* Iaşi, Editura Polirom, 2002;
7. **** Delegaţia Comisiei Europene în România – Euro – o monedă pentru toată Europa*, Bucureşti, 2000;
8. **** Centrul de Informare al Comisiei Europene în România, European Issues,* Bucureşti, 2003;
9. Surse on-line.

QUALIFICATION STRATEGIES IN ICT FOR EUROPE AND ROMANIA

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Abstract: *In the international comparison significant differences regarding the future demand come into view. In Romania and Portugal, where the ICT qualification is dominated by universities degrees, the companies correspondingly see the biggest demand on qualification level 5M (masters' degree). For Portugal this is the only group where companies see a significantly higher demand in the near future. For the Czech Republic and Germany only one fifth of the companies say there will be a higher demand on university based level 5M and in the Netherlands, it is even less, with only 10% of the companies. In these three countries - and particularly in the Czech Republic - almost half of the companies foresee a higher demand on level 5B.*

Keywords: *ICT practitioners, ICT training, vocational education and training*

Jel Classification: *I - Health, Education, and Welfare, I2 – Education, I23 - Higher Education Research Institutions*

General demand of ICT practitioners in Europe

The expectations of the companies indicate an increasing and higher demand of ICT practitioners (see Figure 1) especially for level 5B which are short higher education degrees on the "bachelor" level. Almost 40% of the companies say that the demand will increase on this qualification level. About one third of the companies expect an increasing demand of ICT professionals on level 5M and level 4. For level 3 it is still 30% of the companies and on level 2 only 20% altogether.

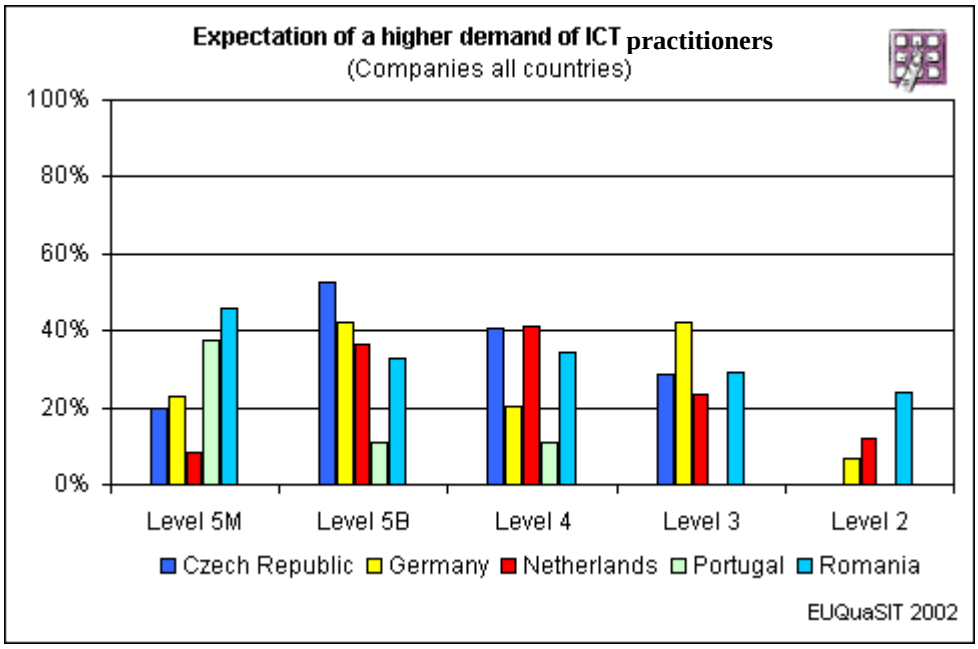

Figure 1: The expectation of the demand of ICT practitioners in companies

In the international comparison significant differences regarding the future demand come into view. In Romania and Portugal, where the ICT qualification is dominated by universities degrees, the companies correspondingly see the biggest demand on qualification level 5M (masters' degree). For Portugal this is the only group where companies see a significantly higher demand in the near future. For the Czech Republic and Germany only one fifth of the companies say there will be a higher demand on university based level 5M and in the Netherlands, it is even less, with only 10% of the companies. In these three countries - and particularly in the Czech Republic - almost half of the companies foresee a higher demand on level 5B.

The outcomes for qualification level 4 differ considerably and the Dutch companies see the highest demand. The analysis of the ICT qualification structure in the Netherlands indicates correspondingly the quantitative importance of the qualification level, meaning that supply and demand fit altogether. Furthermore the comparison illustrates that the Czech and Romanian companies assume that the future demand of ICT professionals on qualification level 4 will be higher than today. Unexpectedly low is the proportion of only 20% of the companies in Germany saying that the demand will be higher on level 4. On the contrary, qualification level 3 - where new ICT profiles were launched in Germany in 1997 - is of crucial importance and almost 50% of the German companies say that the

demand will still increase in a short and mid term view. The proportion for the other countries is significantly lower for level 3 whereas Portuguese companies do not see a higher demand than today.

ICT training

The approach of the EUQuaSIT project on the skill aspect refers to the training level obtained for a given ICT qualification. The training level is considered on a scale from level 2 (skilled worker) to level 5B (bachelor) and 5M (master).

ICT involves high technology, therefore ICT qualifications require deep knowledge and keen understanding of subtle phenomena, also some creativity and intensive training of the people involved. Investigations in companies performed by the project team (in respective countries) revealed a great concern for higher education graduates as qualified personnel for the jobs in ICT; that means the training level of those involved in ICT is raising for the years to come.

ICT training providers

As far as the delimitation of vocational education and training (VET) and continuing vocational education and training (CVT) is concerned, the EUQuaSIT project partners agreed on two main criteria. First of all, VET qualification are defined as qualification with which participants reach a new level, whereas CVT takes place on a certain level focusing on specific content. In accordance with this definition the group decided secondly that VET is also characterized by a certain period of time typically longer than 12 months. In addition, CVT courses were also supposed to be considered longer than 3 days of training.

ICT qualification may be obtained in various types of training institutions in the countries around Europe. With regard to the "Provider of Training" the project partners agreed on a common list of ICT training providers presented in Figure 2, where the international (English) name (in the first column) refers to the national names of the training provider in the EUQuaSIT countries, and gives a general idea on ICT education institutions in Europe.

International	Czech Republic	Germany	Netherlands	Portugal	Romania
Public Vocational School / College	Střední odborná škola	Staatliche Berufsschule	Regionaal opleidingscentrum (ROC)	Ensino Vocacional Público	De stat: 1. Liceu/Colegiu tehnologic (de specialitate/profil); 2. Şcoală de ucenici; 3. Şcoală Profesională;
Private Vocational School / College	Soukromá Střední odborná škola	Private Berufsschule	Particulier opleidingsinstituut (voor middelbaar beroepsonderwijs)	Ensino Vocacional Privado	Particulare: 1. Liceu/Colegiu tehnologic (de specialitate/profil); 2. Institutie de calificare;
Company and Vocational School / College	Střední odborne ucilište	Betrieb und Berufsschule	Bedrijf en regionaal opleidingscentrum (ROC)	Empresa/ Instituição e Ensino Vocacional	Şcoală de maiştri.
Public College / Institute for Further Vocational Education	Vyšší odborná škola	Staatliche Institution für berufliche Weiterbildung	Organisatie voor bijscholing	Escolas Públicas / Institutos Públicos de Ensino Vocacional Adicional	De stat: 1. Şcoală postliceală 2. Şcoală de maiştri.
Company	Spolecnost, Institut	Betrieb / Firma / Unternehmen	Bedrijf	Empresa / Instituição	Firma/Companie

Company and College for Higher Vocational Education	Akademie	Betrieb und Berufsakademie	Bedrijf en school voor hoger beroepsonder wijs	Empresa / Instituição e Escola de Ensino Vocacional Superior	Colegiu Universitar: 1. de stat; 2. particular
Public University of Applied Science / Higher Vocational Education	Vysoká škola	Staatliche Fachhochschule	School voor hoger beroepsonder wijs	Universidade Pública / Ensino Vocacional Superior	De stat: Universitate (tehnică)/ Institut/Academie
Private University of Applied Science / Higher Vocational Education	Soukromá vysoká škola	Private Fachhochschule	Particulier instituut voor hoger beroepsonder wijs	Universidade Privada / Ensino Vocacional Superior	Particulara: Universitate (tehnică)/ Institut/ Academie
Public University	Univerzita	Staatliche Universität	Universiteit	Universidade Pública	De stat: Universitate (tehnică) /Institut/ Academie
Private University	Soukromá univerzita	Private Universität	Particuliere universiteit	Universidade Privada	Particulară: Universitate (tehnică) /Institut/ Academie

Figure 2: List with "Provider of Trainings" to be chosen for the ICT qualification skills and profiles.

Focusing on VET, in the view of the companies, on the external training providers (see Figure 3), the most important are the "suppliers and producers of ICT products and service".

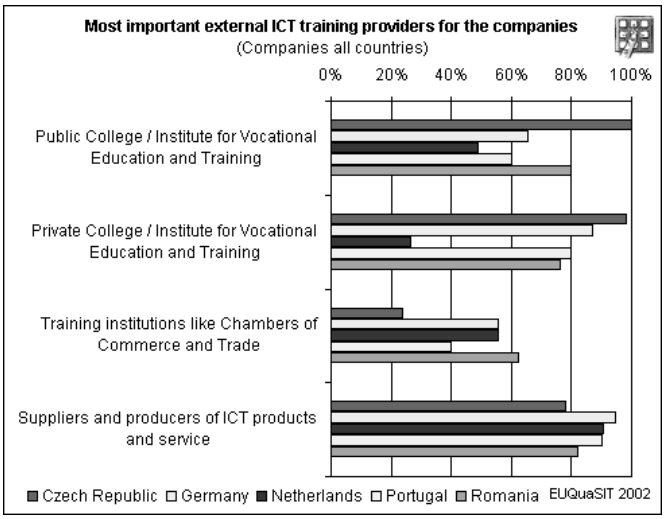

Figure 3: Most important external ICT training providers fro the companies.

Training institutions like the chambers of commerce and trade seem to have "just" an additional function in all the countries especially in the Czech Republic.

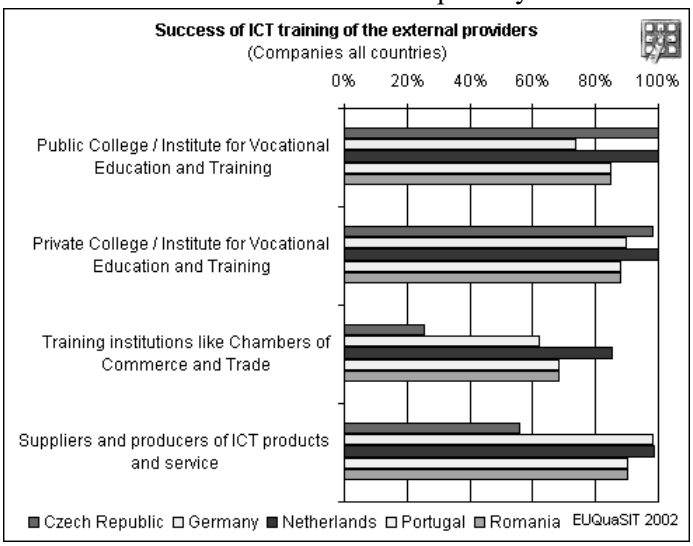

Figure 4: Most important external ICT training providers for the companies.

The public colleges are most frequently used in Romania and the Czech Republic, whereas the public colleges, for vocational education and training, are still more frequently used in the Netherlands than the private ones the situation in Germany and Portugal is the other way round.

Companies answered that the success of the ICT training is best insured at the public and private colleges as well as at the suppliers and producers of ICT products and service, apart from the suppliers of ICT products in the Czech Republic. The Czech companies are also not really convinced of training institutions like the chambers of commerce etc.

Organization of ICT education and training

The structure and organization of ICT education and training in the training institutions is quite different for some of the EUQuaSIT partner countries (see Figure 5). Especially in the Netherlands and Romania the majority of training providers say that they offer ICT qualification taking place only in their own institution. In Portugal this proportion is still about 50% of the training institutions, whereas in the Czech Republic and Germany just a quarter organizes their ICT qualification only in their own institution. In the Netherlands the training providers also have often ICT training in the institution plus practical work experience, but also in the institution and a company as a systematic dual concept of vocational training. This was practiced in half of the training institutions in Germany as well.

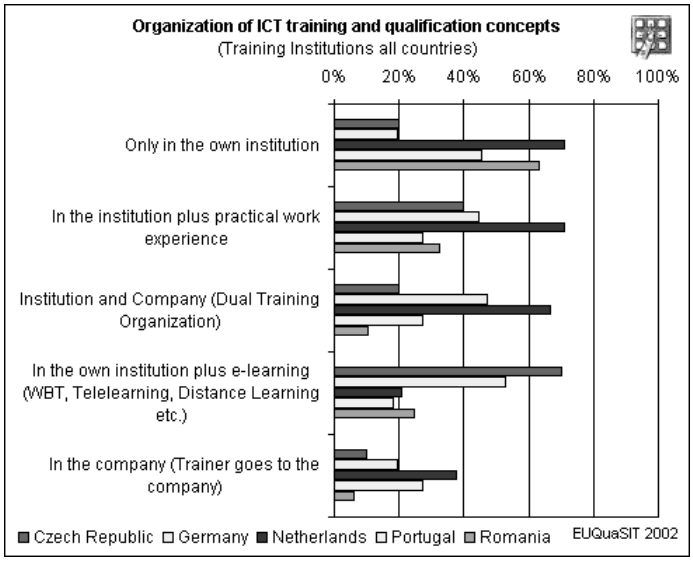

Figure 5: Organization of ICT training and qualification concepts.

Concepts focusing on training in the institution along with e-learning like WBT, long distance learning etc. are mainly practiced in the Czech Republic and Germany. In the Netherlands in general it looks as if organization varies a lot, whereas in Romania organization is almost always limited to "the own organization" sometimes with practical work experience.

Focusing on qualification concepts and methods in further vocational ICT training in companies, in all the partner countries own company's training is often practiced and also successful (see both Figure 6 and Figure 7).

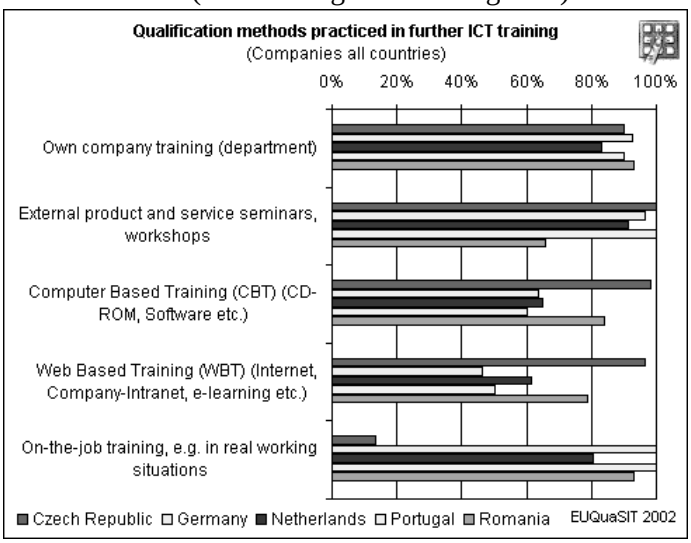

Figure 6: Qualification methods practiced in companies for further ICT training.

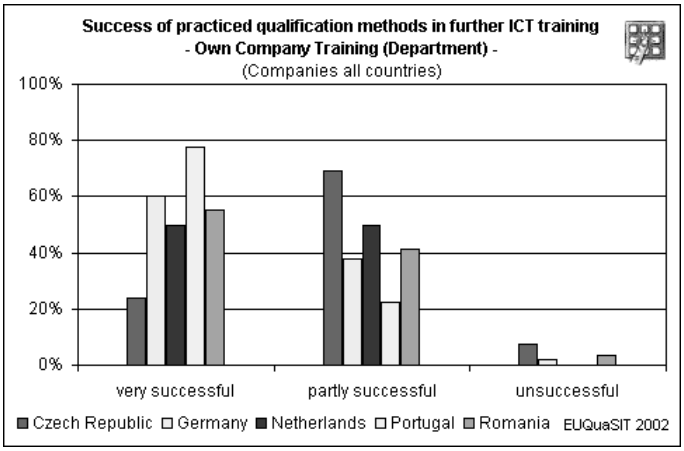

Figure 7: Qualification methods practiced in companies for further ICT training.

External product and service seminars are of equal importance and success apart from Romania. Furthermore it is a very interesting result that concepts like computer based training (CBT) and web based training (WBT) are in particular wide spread in the Eastern European countries Czech Republic and Romania. In Germany, the Netherlands and Portugal the proportion of companies using CBT and WBT in further ICT training is about 60% and therefore significantly lower. However the majority of companies think these concepts are successful. Finally it is noticeable that on-the-job training is obviously rarely practiced in the Czech Republic, and companies in this country correspondingly state that this is not successful in further ICT training.

ICT profiles

ICT profiles should address the specificity of a target domain. While it is impractical to deal with too many domains, EUQuaSIT promoter proposed a total of 6 Generic Work Areas focused by the ICT education – see Figure 8, while first results regarding the structure and the contents of the ICT business processes (work flow) have been leading to the assumption that ICT business processes can in general consist of distinguishable types of ICT work processes.

In this view, an ICT profile addresses one of the work areas in Figure 8, where the code colour of the work area indicates the nature of specific work processes the practitioner performs, as follows:

- yellow colour for ICT work processes with more economic technical oriented phases of activity and work tasks, like ICT marketing, sales etc.;
- blue colour for ICT work processes with more informatics technical oriented phases of activity and work tasks, like ICT system development, software development, administration etc.;
- red colour for ICT work processes with more technical informatics and hardware oriented phases of activity and work tasks, like ICT system integration, installation etc.;
- green colour for ICT work processes with more ICT service oriented phases of activity and work tasks, like ICT service, troubleshooting, maintenance etc.

Figure 8: Six Generic Work Areas for ICT qualification profiles.

ICT education observes specific methods and instruments that the work area requires, education should refer to theoretical and working details necessary to complete tasks meant for skill level and area.

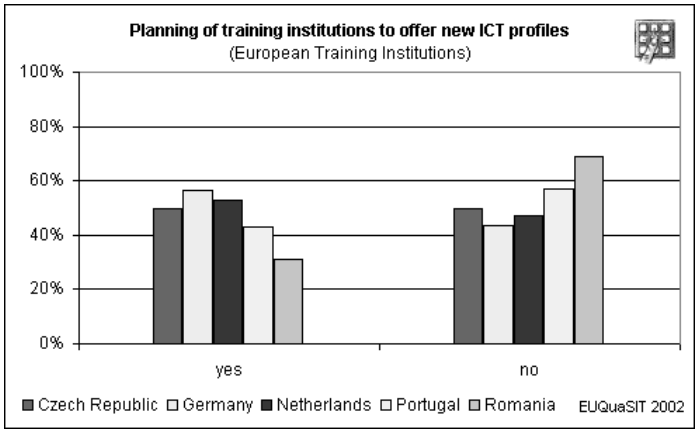

Figure 9: Planning of training institutions to offer new ICT profiles.

To the expectation in change of the demand of ICT professionals, the outcomes illustrated pointed out that about half of the training providers plan to offer new ICT profiles (see Figure 9), with the highest proportion in Germany and the lowest of about 30% in Romania. The focus of new profiles is in business and management areas of ICT as well as new application orientated ICT profiles. In

Germany for instance some of the training institutions plan to offer the new ICT professional and specialist profiles like IT Key Account Manager, IT Trainer etc.

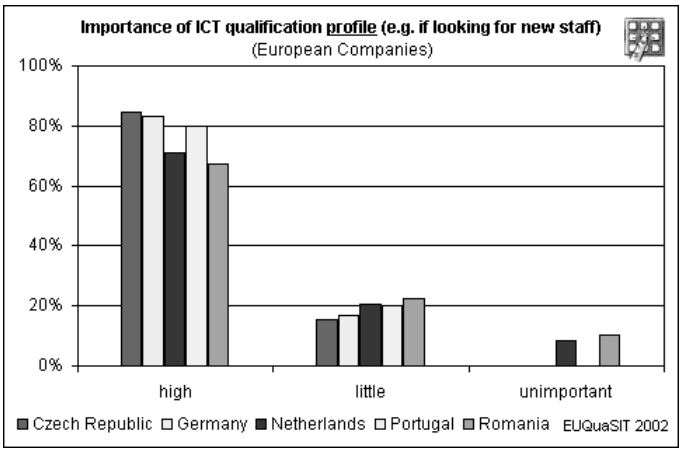

Figure 10: Importance given by companies to ICT qualification profile of the employed staff.

In the context of the ICT qualification demand in companies, for instance when looking for new staff, the profile is of essential importance for most of the companies (see Figure 10). In the Czech Republic, Germany and Portugal the proportion of companies who stress the significance of "the exact" profile of new ICT specialists is between 80 and 85%. In the Netherlands and Romania the percentage is significantly lower. Moreover in these two countries there are almost 10% of the companies that say that an exact ICT profile is unimportant when it comes to look for or even employ new ICT professionals.

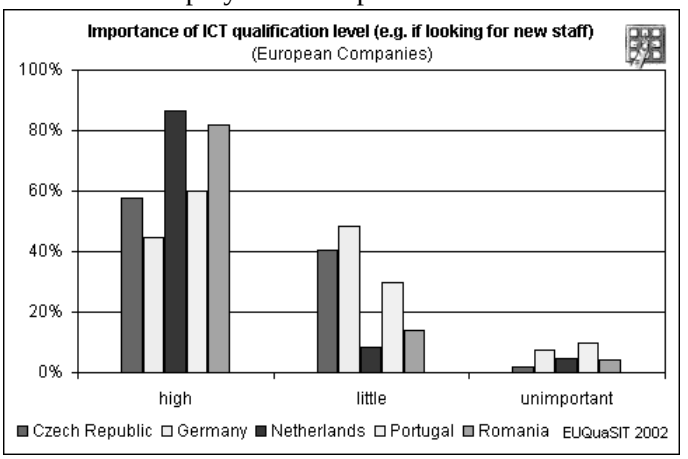

Figure 11: Importance given by companies to ICT qualification level of the employed staff.

In addition to the exact ICT profile, the companies were asked about the weight of the degree and level respectively achieved by the ICT professionals (see Figure 11). The outcomes differ considerably regarding this question. In the Netherlands and Romania, where exact ICT profile is less important compared to the other countries, the level is more important following the assessment of more than 80% of the companies. On the contrary "only" 60% of the companies in the Czech Republic and Portugal say the level of qualification is fundamental when looking for new ICT staff. In Germany the proportion of companies is even under 50% and the majority says that the level of ICT professionals is of little importance. Nevertheless only a small amount of companies say the level is unimportant.

Comparison of ICT profiles structure around Europe

The comparison below uses the information collected from the EUQuaSIT partner countries, and reflects the quantitative and the qualitative situations existing now in Europe in the field of qualifications in the ICT for the six work areas in Figure 8.

While the total numbers on HE ICT profiles are similar in the investigated countries there are distinct differentiations in the number of ICT profiles for each work area. Moreover, the titles of the training profile and the content are different. Similar numbers do not indicate similarities in ICT profiles, hence the comparison is conducted on the analysis of the profiles depending on the areas they belong. On the other hand, the number of specializations does not always indicate a diversity of profiles; for example, the offer of HE profiles for ICT in Romania is comparable with other countries' offer, but its diversity is small, while some specialization overlaps. The forms of HE are chiefly based on university and university of applied science studies, with some differences regarding the lengths of studies (see Fachochschule and Berufsakademie in Germany), also regarding private versus state institutions (a significant growth in Portugal and Romania, and it is weak in Germany and Czech Republic).

VET is most developed in Germany, where a wide range of ICT profiles exist. Netherlands and Czech Republic have also strong VET in ICT, oriented to the job market needs.

The diversity of ICT courses for CVT is large in all countries, and there are many narrow qualifications prepared by the ICT companies for their products or just prepared by the training institutions for various purposes (as education in ICT, CAD, software development). So, big ICT companies as Microsoft, Oracle, AutoDesk, CISCO have a wide offer of courses, each to a specialization - in CAD, system

engineering, ICT maintenance, networking and so on. Additionally, there are courses for narrow specializations – e.g. ICT software for accounting, office IT, computer or robots operation.

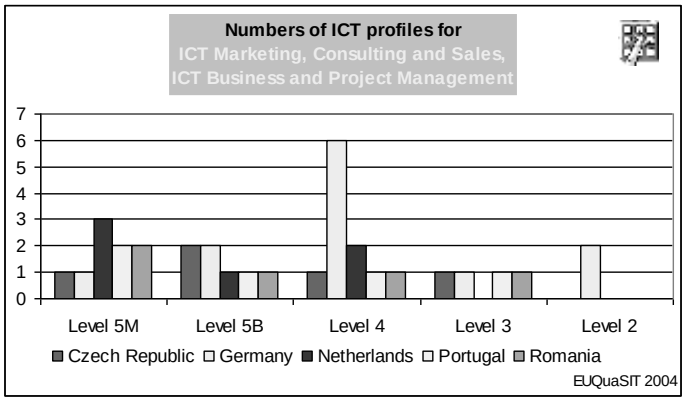

Figure 12: Number of ICT profiles on levels for the economic oriented areas.

Of great interest, in the present comparison, is the distribution of ICT profiles for each country and for each level on each generic work area, in Figure 12, Figure 13, Figure 14; each chart refers to the pair of similar work areas (coloured in yellow, blue, red and green – see Figure 8). Those numbers indicate the relative difference between European countries regarding the existing ICT profiles in the given works areas and the discrepancy between existing ICT profiles and the recommended ones (see the dark column in each level group).

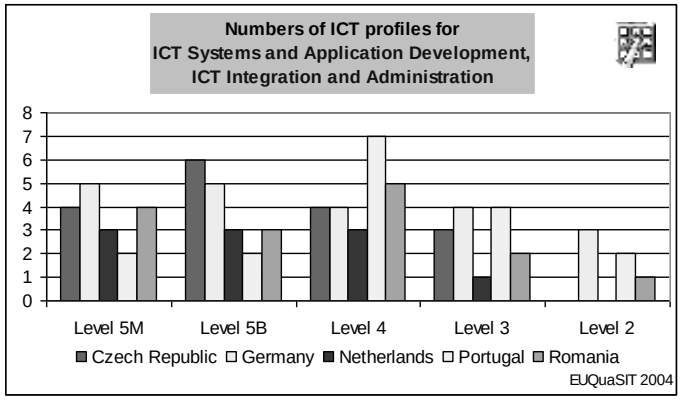

Figure 13: Number of ICT profiles on levels for the Informatics oriented areas.

Many ICT profiles exist in the area of ICT Infrastructure and Integration, which in nowadays ICT is of less importance. Traditional view on ICT – as the

"programmers and programming land", is reflected in the big number of level 4, 3 and 2 in the area of ICT Systems and Application Development, ICT Integration and Administration. It is obvious that using new design tools in the software development lower level qualifications are less involved in that process; on the contrary, they should be much involved in the ICT Marketing, Consulting and Sales or ICT Business and Project Management.

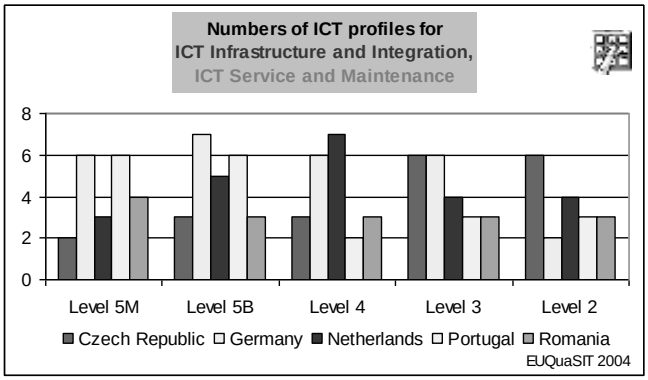

Figure 14: Number of ICT profiles on levels for the Integration and the Service oriented areas.

Interpreting the charts above it helps the issue of the European strategy regarding qualifications in ICT. For example, more and more ICT qualifications migrates from traditional "computer programming" or "computer operating" activities to commercial or service activities. It is a strong demand of ICT qualified persons in application configuration and tuning for distinct target domains – as marketing and sales, biology and medicine, banking and commerce. Investigations in companies revealed that ICT training is not well adapted to the needs of the ICT jobs market. The common European policy should cover the qualifications spectrum by numbers and content also by distribution to each work area as recommended by EUQuaSIT project.

Regarding the duration of ICT training provided for the five training levels, the analysis reveals a large diversity of the training duration in ICT in the European countries for the same level, hence the diverse approach on the extension of the training. So, while HE duration is in almost all countries the same (for level 5M - 60 months and for level 5B - 48 months), VET durations' diversity are surprising (for levels 2, 3 and 4 durations are 12, 16, 24, 36 and 48 months in various proportions each for each country). Only judging on the training duration it becomes obvious that a common European policy is necessary to assure the compatibility of ICT qualifications in Europe.

DEGENERATE FOLIATIONS IN SASAKIAN SEMI-RIEMANNIAN MANIFOLDS

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Abstract: *In the Semi-Riemannian case we do not have the liability of the existence of such a metric being a difference from the Riemannian case. A Semi-Riemannian manifold provided with a normal contact metric structure is called Sasakian manifold.*

Keywords: *Semi-Riemannian, Sasakian manifold*

Jel Classification: *C - Mathematical and Quantitative Methods, C0 - General, C00 - General*

In the Semi-Riemannian case we do not have the liability of the existence of such a metric being a difference from the Riemannian case.

Definition Let $M=M^{2n+1}$ a connected Semi-Riemannian manifold and φ, ξ, η tensorial fields on M of types (1,1), (1,0) and (0,1) respectively. We say that (φ,ξ,η) define an almost contact structure on M if:

(1) $$\varphi^2Y=-Y+\eta(Y)\xi \ \forall Y\in X(M)$$

(2) $$\eta(\xi)=1$$

In these conditions we have the relations:

(3) $$\eta(\varphi Y)=0 \ \forall Y\in X \ (M)$$

(4) $$\varphi\xi=0$$

We define the contact distribution like $D=\{Y\in X(M) \mid \eta(Y)=0\}$.

Definition A metric g on M for which:

(5) $$g(\varphi X,\varphi Y)=g(X,Y)-\varepsilon\eta(X)\eta(Y) \ \forall X,Y\in X \ (M)$$

where $\varepsilon\in\{-1,1\}$ is called compatible metric with the almost contact structure.

In the Semi-Riemannian case we do not have the liability of the existence of such a metric being a difference from the Riemannian case.

Definition If on a Semi-Riemannian manifold M^{2n+1} we have an almost contact structure (φ,ξ,η) and a compatible metric with the structure we shall say that (φ,ξ,η,g) define an almost contact metric structure.

For $Y=\xi$ in (1) we have with (2) and (4):

(6) $$g(X,\xi)=\varepsilon\eta(X)\ \forall X\in X\ (M)$$

and if in (6) $Y=\xi$:

(7) $$g(\xi,\xi)=\varepsilon$$

Remark If we shall consider in the upper $g'=-g$, $\xi'=-\xi$, $\eta'=-\eta$ and $\varphi'=\varphi$ we have together with $\varepsilon'=-\varepsilon$ also an almost contact metric structure. We can further suppose that $\varepsilon=1$.

Definition: Let $M=M^{2n+1}$ a connected Semi-Riemannian manifold provided with an almost contact metric structure (φ,ξ,η,g). We shall say that the structure is contact metric if:

(8) $$(d\eta)(X,Y)=g(\varphi X,Y)\ \forall X,Y\in X\ (M)$$

Definition: An almost contact metric structure (φ,ξ,η,g) is normal if:

(9) $$(\nabla_X\varphi)Y=g(X,Y)\xi-\eta(Y)X\ \forall X,Y\in X\ (M)$$

where ∇ is the Levi-Civita connection for the metric g.

Definition A Semi-Riemannian manifold provided with a normal contact metric structure is called Sasakian manifold.

On a Sasakian manifold the following relations hold:

(10) $$\nabla_X\xi=-\varphi X\ \forall X\in X\ (M)$$

(11) $$N^1(X,Y)=N_\varphi(X,Y)+2d\eta(X,Y)\xi=0\ \forall X,Y\in X\ (M)$$

(12) $$N^2(X,Y)=(L_{\varphi X}\eta)Y-(L_{\varphi Y}\eta)X=0\ \forall X,Y\in X\ (M)$$

(13) $$N^3(X)=(L_\xi\varphi)X=0\ \forall X\in X\ (M)$$

(14) $$N^4(X)=(L_\xi\eta)X=0\ \forall X\in X\ (M)$$

where $N_\varphi(X,Y)=[\varphi X,\varphi Y]-\varphi[\varphi X,Y]-\varphi[X,\varphi Y]+\varphi^2[X,Y]$.

Let now a φ-basis of TM that is an orthonormal basis of the form: $\{\xi, Y_1,...,Y_n,\varphi Y_1,...,\varphi Y_n\}$ where $Y_i\in D$, i=1,...,n. We denote by

$$\varepsilon_i=g(Y_i,Y_i)=g(\varphi Y_i,\varphi Y_i),\ i=1,...,n.$$

We define now the 1-differential forms:

(15) $$\omega_i(Z)=g(Y_i,Z)\ \forall Z\in X\ (M)\ \forall i=1,...,n$$

and from (15) we have:

(16) $$g(\varphi Y_i,Z)=-\omega_i(\varphi Z)\ \forall Z\in X\ (M)\ \forall i=1,...,n$$

Let now two arbitrary vector fields:

(17) $$X=\eta(X)\xi+\sum_{i=1}^{n}\varepsilon_i\omega_i(X)Y_i-\sum_{i=1}^{n}\varepsilon_i\omega_i(\varphi X)\varphi Y_i$$

(18) $$Z=\eta(Z)\xi+\sum_{j=1}^{n}\varepsilon_j\omega_j(Z)Y_j-\sum_{j=1}^{n}\varepsilon_j\omega_j(\varphi Z)\varphi Y_j$$

We have now:

(19) $$[X,Z]=\{\eta(X)\nabla_\xi\eta(Z)-\eta(Z)\nabla_\xi\eta(X)+\sum_{j=1}^{n}\varepsilon_j\omega_j(X)\nabla_{Y_j}\eta(Z)-$$

$$\sum_{j=1}^{n}\varepsilon_j\omega_j(Z)\nabla_{Y_j}\eta(X)+\sum_{j=1}^{n}\varepsilon_j\omega_j(\varphi Z)\nabla_{\varphi Y_j}\eta(X)-\sum_{j=1}^{n}\varepsilon_j\omega_j(\varphi X)\nabla_{\varphi Y_j}\eta(Z)\}\xi+$$

$$\sum_{j=1}^{n}\varepsilon_j\{\eta(X)\nabla_\xi\omega_j(Z)-\eta(Z)\nabla_\xi\omega_j(X)+\sum_{i=1}^{n}\varepsilon_i\omega_i(X)\nabla_{Y_i}\omega_j(Z)-$$

$$\sum_{i=1}^{n}\varepsilon_i\omega_i(Z)\nabla_{Y_i}\omega_j(X)+\sum_{i=1}^{n}\varepsilon_i\omega_i(\varphi Z)\nabla_{\varphi Y_i}\omega_j(X)-$$

$$\sum_{i=1}^{n}\varepsilon_i\omega_i(\varphi X)\nabla_{\varphi Y_i}\omega_j(Z)\}Y_j+\sum_{j=1}^{n}\varepsilon_j\{\eta(Z)\nabla_\xi\omega_j(\varphi Z)-\eta(X)\nabla_\xi\omega_j(\varphi Z)+\sum_{i=1}^{n}\varepsilon_i\omega_i(Z)\nabla_{Y_i}\omega_j(\varphi X)-$$

$$\sum_{i=1}^{n}\varepsilon_i\omega_i(X)\nabla_{Y_i}\omega_j(\varphi Z)+\sum_{i=1}^{n}\varepsilon_i\omega_i(\varphi X)\nabla_{\varphi Y_i}\omega_j(\varphi Z)-\sum_{i=1}^{n}\varepsilon_i\omega_i(\varphi Z)\nabla_{\varphi Y_i}\omega_j(\varphi X)\}\varphi Y_j+$$

$$\sum_{j=1}^{n}\varepsilon_j\{\eta(X)\omega_j(Z)-\eta(Z)\omega_j(X)\}[\xi,Y_j]+\sum_{j=1}^{n}\varepsilon_j\{\eta(Z)\omega_j(\varphi X)-\eta(X)\omega_j(\varphi Z)\}[\xi,\varphi Y_j]-$$

$$\sum_{i,j=1}^{n}\varepsilon_i\varepsilon_j\,\omega_i(Z)\omega_j(X)[Y_i,Y_j]+\sum_{i,j=1}^{n}\varepsilon_i\varepsilon_j\{\omega_i(Z)\omega_j(\varphi X)-\omega_i(X)\omega_j(\varphi Z)\}[Y_i,\varphi Y_j]-$$

$$\sum_{i,j=1}^{n}\varepsilon_i\varepsilon_j\,\omega_i(\varphi Z)\omega_j(\varphi X)[\varphi Y_i,\varphi Y_j].$$

If we define now:

(20) $$Z_j=\omega_j(Z)X-\omega_j(X)Z\ \forall j=1,...,n$$

(21) $$W_j=\omega_j(\varphi Z)X-\omega_j(\varphi X)Z\ \forall j=1,...,n$$

(22) $$T=\eta(X)Z-\eta(Z)X$$

we obtain:

(23) $$[X,Z]=(\operatorname{div} Z)X-(\operatorname{div} X)Z-\{\operatorname{div} T-2\sum_{j=1}^{n}\varepsilon_j\omega_j(W_j)\}\xi+\sum_{j=1}^{n}\varepsilon_j(\operatorname{div} Z_j)Y_j-$$

$$\sum_{j=1}^{n}\varepsilon_j(\operatorname{div} W_j)\varphi Y_j+\sum_{j=1}^{n}\varepsilon_j\eta(Z_j)[\xi,Y_j]-\sum_{j=1}^{n}\varepsilon_j\eta(W_j)\varphi[\xi,Y_j]-\sum_{i,j=1}^{n}\varepsilon_i\varepsilon_j\,\omega_j(W_i)[\varphi Y_i,Y_j]-$$

$$\sum_{\substack{i,j=1\\ i<j}}^{n}\varepsilon_i\varepsilon_j\,\omega_j(\varphi W_i)\varphi[\varphi Y_i,Y_j]+\sum_{\substack{i,j=1\\ i>j}}^{n}\varepsilon_i\varepsilon_j\,\omega_i(\varphi W_j)\varphi[\varphi Y_i,Y_j]+\sum_{\substack{i,j=1\\ i<j}}^{n}\varepsilon_i\varepsilon_j\{\omega_i(Z_j)-\omega_j(\varphi W_i)\}[Y_i,Y_j].$$

In order that the two vector fields define a foliation we must have:

(24) $$-\{\operatorname{div} T-2\sum_{j=1}^{n}\varepsilon_j\omega_j(W_j)\}\xi+\sum_{j=1}^{n}\varepsilon_j(\operatorname{div} Z_j)Y_j-\sum_{j=1}^{n}\varepsilon_j(\operatorname{div} W_j)\varphi Y_j+$$

$$\sum_{j=1}^{n}\varepsilon_j\eta(Z_j)\,[\xi,Y_j]-\sum_{j=1}^{n}\varepsilon_j\eta(W_j)\,\varphi[\xi,Y_j]-\sum_{i,j=1}^{n}\varepsilon_i\varepsilon_j\,\omega_j(W_i)[\varphi Y_i,Y_j]-\sum_{\substack{i,j=1\\ i<j}}^{n}\varepsilon_i\varepsilon_j\,\omega_j(\varphi W_i)\varphi[\varphi Y_i,Y_j]+$$

$$\sum_{\substack{i,j=1\\ i>j}}^{n}\varepsilon_i\varepsilon_j\,\omega_i(\varphi W_j)\varphi[\varphi Y_i,Y_j]+\sum_{\substack{i,j=1\\ i<j}}^{n}\varepsilon_i\varepsilon_j\,\{\omega_i(Z_j)-\omega_j(\varphi W_i)\}[Y_i,Y_j]\in \mathrm{Span}(X,Z).$$

Example

Let on $\mathbf{R}_v^{2n+1}$ with the coordinates $(x^1,...,x^n,y^1,...,y^n,z)$ the usual contact structure defined by:

(25) $$\eta=dz-\sum_{i=1}^{n}y^i dx^i$$

(26) $$\xi=\frac{\partial}{\partial z}$$

(27) $$\varphi=\begin{pmatrix}0 & I & 0\\ -I & 0 & 0\\ 0 & y^t & 0\end{pmatrix}$$

where $y^t=(y^1,...,y^n)$ and I the identity.

The contact distribution D is generated by $\left\{\frac{\partial}{\partial y^i},\frac{\partial}{\partial x^i}+y^i\frac{\partial}{\partial z}\right\}_{i=1,...,n}$.

The compatible metric is:

(28) $$g=\sum_{i,j=1}^{n}(\varepsilon_i\delta_{ij}+y^i y^j)dx^i dx^j-2\sum_{i=1}^{n}y^i dx^i dz+\sum_{i=1}^{n}\varepsilon_i\left(dy^i\right)^2+dz^2$$

Let

(29) $$X=\sum_{i=1}^{n}a_i\frac{\partial}{\partial x^i}+\sum_{i=1}^{n}b_i\frac{\partial}{\partial y^i}+c\frac{\partial}{\partial z}$$

(30) $$Z=\sum_{i=1}^{n}d_i\frac{\partial}{\partial x^i}+\sum_{i=1}^{n}e_i\frac{\partial}{\partial y^i}+f\frac{\partial}{\partial z}$$

where $a_i,b_i,c,d_i,e_i,f\in F\ (M)$.

We have: $\omega_i=\varepsilon_i dy^i\ \forall i=1,...,n$. It is easy to see that:

(6.31) $$\omega_i(X)=\varepsilon_i b_i,\ \omega_i(\varphi X)=-\varepsilon_i a_i,\ \omega_i(Z)=\varepsilon_i e_i,\ \omega_i(\varphi Z)=-\varepsilon_i d_i,\ \eta(X)=c-\sum_{i=1}^{n}a_i y^i,$$

$$\eta(Z)=f-\sum_{i=1}^{n}d_i y^i$$

From (20)-(22) we have:

(32) $$Z_j=\varepsilon_j\left[\sum_{i=1}^{n}(a_i e_j-d_i b_j)\frac{\partial}{\partial x^i}+\sum_{i=1}^{n}(b_i e_j-e_i b_j)\frac{\partial}{\partial y^i}+(ce_j-fb_j)\frac{\partial}{\partial z}\right]$$

(33) $$W_j=\varepsilon_j\left[\sum_{i=1}^{n}(d_ia_j-a_id_j)\frac{\partial}{\partial x^i}+\sum_{i=1}^{n}(e_ia_j-b_id_j)\frac{\partial}{\partial y^i}+(fa_j-cd_j)\frac{\partial}{\partial z}\right]$$

(34) $$T=\sum_{i=1}^{n}\left[(d_ic-a_if)+\sum_{j=1}^{n}(a_id_j-a_jd_i)y^j\right]\frac{\partial}{\partial x^i}+\sum_{i=1}^{n}\left[(e_ic-b_if)+\sum_{j=1}^{n}(b_id_j-a_je_i)y^j\right]\frac{\partial}{\partial y^i}+\sum_{i=1}^{n}(cd_i-fa_i)\frac{\partial}{\partial z}$$

For a field $U=\sum_{i=1}^{n}U^i\frac{\partial}{\partial x^i}+\sum_{i=1}^{n}U^{n+i}\frac{\partial}{\partial y^i}+U^{2n+1}\frac{\partial}{\partial z}$ we have

$$\text{div } U=\sum_{i=1}^{n}\frac{\partial U^i}{\partial x^i}+\sum_{i=1}^{n}\frac{\partial U^{n+i}}{\partial y^i}+\frac{\partial U^{2n+1}}{\partial z}$$

therefore:

(35) $$\text{div } Z_j=\varepsilon_j\left[\sum_{i=1}^{n}\frac{\partial(a_ie_j-d_ib_j)}{\partial x^i}+\sum_{i=1}^{n}\frac{\partial(b_ie_j-e_ib_j)}{\partial y^i}+\frac{\partial(ce_j-fb_j)}{\partial z}\right]$$

(36) $$\text{div } W_j=\varepsilon_j\left[\sum_{i=1}^{n}\frac{\partial(d_ia_j-a_id_j)}{\partial x^i}+\sum_{i=1}^{n}\frac{\partial(e_ia_j-b_id_j)}{\partial y^i}+\frac{\partial(fa_j-cd_j)}{\partial z}\right]$$

(6.37) $$\text{div } T=\sum_{i=1}^{n}\left[\frac{\partial(d_ic-a_if)}{\partial x^i}+\sum_{j=1}^{n}\frac{\partial(a_id_j-a_jd_i)}{\partial x^i}y^j\right]+\sum_{i=1}^{n}\left[\frac{\partial(e_ic-b_if)}{\partial y^i}+\sum_{j=1}^{n}\frac{\partial(b_id_j-a_je_i)}{\partial y^i}y^j+(b_id_i-a_ie_i)\right]+\sum_{i=1}^{n}\frac{\partial(cd_i-fa_i)}{\partial z}y^i$$

(38) $\omega_j(W_j)=a_je_j-b_jd_j$

The condition of integrability is:

(39) $$\left[\sum_{j=1}^{n}(2\varepsilon_j+1)\omega_j(W_j)-\text{div } T\right]\xi+\sum_{j=1}^{n}\varepsilon_j(\text{div } Z_j)Y_j-\sum_{j=1}^{n}\varepsilon_j(\text{div } W_j)\varphi Y_j\in\text{Span}(X,Z)$$

and with (35)-(38) becomes:

(6.40) $$-\sum_{j=1}^{n}\left[\sum_{i=1}^{n}\frac{\partial(a_jd_i-a_id_j)}{\partial x^i}+\sum_{i=1}^{n}\frac{\partial(a_je_i-b_id_j)}{\partial y^i}+\frac{\partial(fa_j-cd_j)}{\partial z}\right]\frac{\partial}{\partial x^j}+\sum_{j=1}^{n}\left[\sum_{i=1}^{n}\frac{\partial(a_ie_j-d_ib_j)}{\partial x^i}+\sum_{i=1}^{n}\frac{\partial(b_ie_j-e_ib_j)}{\partial y^i}+\frac{\partial(ce_j-fb_j)}{\partial z}\right]\frac{\partial}{\partial y^j}+\left[\sum_{j=1}^{n}2(\varepsilon_j+1)(e_ja_j-b_jd_j)+\sum_{j=1}^{n}\frac{\partial(fa_j-cd_j)}{\partial x^j}-\sum_{j=1}^{n}\frac{\partial(ce_j-fb_j)}{\partial y^j}\right]\frac{\partial}{\partial z}\in\text{Span}(X,Z)$$

The conditions that $g(X,X)=0$, $g(Z,Z)\neq0$, $g(X,Z)=0$ become:

$$(41)\ \begin{cases} \left(\sum_{i=1}^{n} a_i y^i - c\right)^2 + \sum_{i=1}^{n} \varepsilon_i a_i^2 + \sum_{i=1}^{n} \varepsilon_i b_i^2 = 0 \\ \left(\sum_{i=1}^{n} d_i y^i - f\right)^2 + \sum_{i=1}^{n} \varepsilon_i d_i^2 + \sum_{i=1}^{n} \varepsilon_i e_i^2 \neq 0 \\ \left(\sum_{i=1}^{n} a_i y^i - c\right)\left(\sum_{j=1}^{n} d_j y^j - f\right) + \sum_{i=1}^{n} \varepsilon_i (a_i d_i + b_i e_i) = 0 \end{cases}$$

From (40) we have:

$$\operatorname{rank}\begin{pmatrix} a_j & d_j & -\left[\sum_{i=1}^{n} \frac{\partial(a_j d_i - a_i d_j)}{\partial x^i} + \sum_{i=1}^{n} \frac{\partial(a_j e_i - b_i d_j)}{\partial y^i} + \frac{\partial(f a_j - c d_j)}{\partial z}\right] \\ b_k & e_k & \left[\sum_{i=1}^{n} \frac{\partial(a_i e_k - d_i b_k)}{\partial x^i} + \sum_{i=1}^{n} \frac{\partial(b_i e_k - e_i b_k)}{\partial y^i} + \frac{\partial(c e_k - f b_k)}{\partial z}\right] \\ c & f & \left[\sum_{p=1}^{n} 2(\varepsilon_p + 1)(e_p a_p - b_p d_p) + \sum_{p=1}^{n} \frac{\partial(f a_p - c d_p)}{\partial x^p} - \sum_{p=1}^{n} \frac{\partial(c e_p - f b_p)}{\partial y^p}\right] \end{pmatrix} = 2$$

where j, k=1,...,n.

We have now:

$$\begin{vmatrix} a_j & d_j & -\left[\sum_{i=1}^{n} \frac{\partial(a_j d_i - a_i d_j)}{\partial x^i} + \sum_{i=1}^{n} \frac{\partial(a_j e_i - b_i d_j)}{\partial y^i} + \frac{\partial(f a_j - c d_j)}{\partial z}\right] \\ b_k & e_k & \left[\sum_{i=1}^{n} \frac{\partial(a_i e_k - d_i b_k)}{\partial x^i} + \sum_{i=1}^{n} \frac{\partial(b_i e_k - e_i b_k)}{\partial y^i} + \frac{\partial(c e_k - f b_k)}{\partial z}\right] \\ c & f & \left[\sum_{p=1}^{n} 2(\varepsilon_p + 1)(e_p a_p - b_p d_p) + \sum_{p=1}^{n} \frac{\partial(f a_p - c d_p)}{\partial x^p} - \sum_{p=1}^{n} \frac{\partial(c e_p - f b_p)}{\partial y^p}\right] \end{vmatrix} = 0$$

therefore:

$$\left[\sum_{i=1}^{n} \frac{\partial(a_j d_i - a_i d_j)}{\partial x^i} + \sum_{i=1}^{n} \frac{\partial(a_j e_i - b_i d_j)}{\partial y^i} + \frac{\partial(f a_j - c d_j)}{\partial z}\right](c e_k - f b_k) +$$

$$\left[\sum_{i=1}^{n} \frac{\partial(a_i e_k - d_i b_k)}{\partial x^i} + \sum_{i=1}^{n} \frac{\partial(b_i e_k - e_i b_k)}{\partial y^i} + \frac{\partial(c e_k - f b_k)}{\partial z}\right](c d_j - f a_j) +$$

$$\left[\sum_{p=1}^{n} 2(\varepsilon_p + 1)(e_p a_p - b_p d_p) + \sum_{p=1}^{n} \frac{\partial(f a_p - c d_p)}{\partial x^p} - \sum_{p=1}^{n} \frac{\partial(c e_p - f b_p)}{\partial y^p}\right](a_j e_k - b_k d_j) = 0$$

$$(ce_k - fb_k)\sum_{i=1}^{n}\frac{\partial(a_jd_i - a_id_j)}{\partial x^i} + (ce_k - fb_k)\sum_{i=1}^{n}\frac{\partial(a_je_i - b_id_j)}{\partial y^i} +$$
$$(ce_k - fb_k)\frac{\partial(fa_j - cd_j)}{\partial z} + (cd_j - fa_j)\sum_{i=1}^{n}\frac{\partial(a_ie_k - d_ib_k)}{\partial x^i} +$$
$$(cd_j - fa_j)\sum_{i=1}^{n}\frac{\partial(b_ie_k - e_ib_k)}{\partial y^i} + (cd_j - fa_j)\frac{\partial(ce_k - fb_k)}{\partial z} +$$
$$(a_je_k - b_kd_j)\sum_{p=1}^{n}2(\varepsilon_p + 1)(e_pa_p - b_pd_p) + (a_je_k - b_kd_j)\sum_{p=1}^{n}\frac{\partial(fa_p - cd_p)}{\partial x^p} -$$
$$(a_je_k - b_kd_j)\sum_{p=1}^{n}\frac{\partial(ce_p - fb_p)}{\partial y^p} = 0$$

$$(ce_k - fb_k)\sum_{i=1}^{n}\frac{\partial(a_jd_i - a_id_j)}{\partial x^i} + (ce_k - fb_k)\sum_{i=1}^{n}\frac{\partial(a_je_i - b_id_j)}{\partial y^i} +$$
$$+ (ce_k - fb_k)^2\frac{\partial\dfrac{fa_j - cd_j}{ce_k - fb_k}}{\partial z} - (fa_j - cd_j)\sum_{i=1}^{n}\frac{\partial(a_ie_k - d_ib_k)}{\partial x^i} +$$
$$(cd_j - fa_j)\sum_{i=1}^{n}\frac{\partial(b_ie_k - e_ib_k)}{\partial y^i} +$$
$$(a_je_k - b_kd_j)\sum_{p=1}^{n}2(\varepsilon_p + 1)(e_pa_p - b_pd_p) + (a_je_k - b_kd_j)\sum_{p=1}^{n}\frac{\partial(fa_p - cd_p)}{\partial x^p} -$$
$$(a_je_k - b_kd_j)\sum_{p=1}^{n}\frac{\partial(ce_p - fb_p)}{\partial y^p} = 0$$

$$(ce_k - fb_k)\sum_{i=1}^{n}\frac{\partial(a_jd_i - a_id_j)}{\partial x^i} + (ce_k - fb_k)^2\frac{\partial\dfrac{fa_j - cd_j}{ce_k - fb_k}}{\partial z} + (cd_j - fa_j)\sum_{i=1}^{n}\frac{\partial(b_ie_k - e_ib_k)}{\partial y^i} +$$
$$(a_je_k - b_kd_j)\sum_{p=1}^{n}2(\varepsilon_p + 1)(e_pa_p - b_pd_p) +$$
$$\sum_{i,p=1}^{n}\delta_{ij}(a_ie_k - b_kd_i)\frac{\partial(fa_p - cd_p)}{\partial x^p} - \delta_{jp}(fa_p - cd_p)\frac{\partial(a_ie_k - d_ib_k)}{\partial x^i}$$
$$+\sum_{i,p=1}^{n}\delta_{kp}(ce_p - fb_p)\frac{\partial(a_je_i - b_id_j)}{\partial y^i} - \delta_{ij}(a_ie_k - b_kd_i)\frac{\partial(ce_p - fb_p)}{\partial y^p} = 0$$

From (38) we have:

$$(39)\quad \frac{\partial\dfrac{cd - af}{bd - ae}}{\partial x^1}(bd - ae)^2 + \frac{\partial\dfrac{bd - ae}{bf - ce}}{\partial y^1}(bf - ce)^2 + \frac{\partial\dfrac{cd - af}{bf - ce}}{\partial z}(bf - ce)^2 = 0$$

From (39), (40) we have:

$$(41)\quad \frac{bd-ae}{bf-ce}=\frac{ay^1-c}{(ay^1-c)y^1-a}$$

$$(42)\quad \frac{cd-af}{bd-ae}=-\frac{1}{ay^1-c}$$

$$(43)\quad \frac{cd-af}{bf-ce}=\frac{-1}{(ay^1-c)y^1-a}$$

If we replace (41)-(43) in (39) we have:

$$(44)\quad \left[\frac{\partial a}{\partial z}-a^2\right](y^1)^2+\left[\frac{\partial a}{\partial x^1}-\frac{\partial c}{\partial z}+2ac\right]y^1+\left[-\frac{\partial c}{\partial x^1}+a\frac{\partial c}{\partial y^1}-c\frac{\partial a}{\partial y^1}-\frac{\partial a}{\partial z}-a^2-c^2\right]=0$$

If we note $A=ay^1-c$ we have:

$$(45)\quad \frac{\partial A}{\partial x^1}+\left(A\frac{\partial a}{\partial y^1}-a\frac{\partial A}{\partial y^1}-A^2\right)+\left(y^1\frac{\partial A}{\partial z}-\frac{\partial a}{\partial z}\right)=0$$

We have.

$$\text{div } X=\sum_{i=1}^{n}\left(\frac{\partial X^i}{\partial x^i}+\sum_{j=1}^{2n+1}\left|\begin{matrix}i\\ i\ j\end{matrix}\right|X^j\right)+\sum_{a=1}^{n}\left(\frac{\partial X^{n+a}}{\partial y^a}+\sum_{j=1}^{2n+1}\left|\begin{matrix}n+a\\ n+a\ j\end{matrix}\right|X^j\right)+\left(\frac{\partial X^{2n+1}}{\partial z}+\sum_{j=1}^{2n+1}\left|\begin{matrix}2n+1\\ 2n+1\ j\end{matrix}\right|X^j\right)$$

REFERENCES:

1 Bejancu, A., Duggal, K. L., *Lightlike Submanifolds of Semi-Riemannian Manifolds and Applications*, Dordrecht, Kluwer Acad.Publishers, 1996;

2 Blair, D. E., *Contact Manifolds in Riemannian Geometry*, Springer-Verlag, Berlin-Heidelberg, New York, 1976;

3 Chen, B. Y., *Geometry of Submanifolds*, New York, Marcel Dekker, 1973;

4 Eisenhart, L. P., *Riemannian Geometry*, Princeton University Press, 1926;

5 Ioan, C. A., *Totally Umbilical Lightlike Submanifolds*, Bull. Math. Soc. Sc. Math. Roumanie, Tome 37 (87), No. 1-4, 1996;

6 Ioan, C. A., *Degenerate Submanifolds of Semi-Riemannian Manifolds*, Tensor, N. S., Vol.58, No. 1 (1997);

7 Ioan, C. A., *Totally Geodesic Foliations and Minimal Foliations on the Semi-Riemannian Manifolds*, Rev. Roum. Math. Pures et Appl., XLII, 3-4 (1997);

8 Ioan, C. A., *Totally Geodesic Foliations on Semi-Riemannian Manifolds*, Tensor, N. S., Vol.58, No.1 (1997);

9 Kobayashi, S., Nomizu, K., *Foundations of Differential Geometry*, New York, Interscience Publishers, vol. I, 1963, vol. I, 1969;

10 Lawson, H. B., *Foliations*, Bull. Amer. Math. Soc., (80), 3, 1974;

11 Molino, P., *Riemannian foliations*, Boston, Basel, Birkhauser, 1988;

12 O'Neill, B., *Semi-Riemannian Geometry with Applications to Relativity*, Academic Press, 1983;

13 Reinhart, B. L., *Differential Geometry of Foliations*, Springer-Verlag, 1983;

14 Takahashi, T., *Sasakian Manifold with Pseudo-Riemannian Metric*, Tohoku Math. Journ, 21(1969).

A GENERAL TYPE OF ALMOST CONTACT MANIFOLDS

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Abstract: *Among almost contact manifolds Sasakian manifolds, Kenmotsu manifolds (called also "a certain class of almost contact manifolds") and cosymplectic manifolds have been studied by many authors.*

The purpose of this paper is to obtain a class of almost contact manifolds which will generalize the above manifolds.

The paper generalizes the RK-manifolds introduced by Lieven Vanhecke. I give some results concerning the submanifolds of these spaces, the behaviour of these submanifolds at conformal, projective and concircular transformations. Also I obtain a similar result with those on RK-manifolds but in a form a little weaker when they satisfy the axiom of 2p+1-coholomorphic spheres.

Keywords: *manifolds Sasakian, Kenmotsu manifolds, metric manifold. RK-manifolds, Kähler manifold, geodesic submanifolds*

Jel Classification: *C-Mathematical and Quantitative Methods, C0-General,C00*

1. Introduction

Among almost contact manifolds Sasakian manifolds, Kenmotsu manifolds (*called also "a certain class of almost contact manifolds"*) and cosymplectic manifolds have been studied by many authors. In [1], [2], [3] we find the principal results about these manifolds.

The purpose of this paper is to obtain a class of almost contact manifolds which will generalize the above manifolds.

After some general results, we have obtained the Riemann-Christoffel tensor in the case of constant φ-sectional curvature. In the last paragraph we study a subclass of this general type which is richer in information.

2. Preliminaries

We call an **almost contact metric manifold**, one denoted by M^{2n+1} for which:

(1) $\varphi^2X=-X+\eta(X)\xi$

(2) $\eta(\xi)=1$

(3) $\varphi\xi=0$

(4) $\eta(\varphi X)=0$

(5) $g(\varphi X,\varphi Y)=g(X,Y)-\eta(X)\eta(Y)\ \forall X,Y\in\mathcal{X}(M)$

where φ is a (1,1)-type tensor field, η a 1-form, ξ a vector field (named the characteristic vector field) and g is the associated Riemannian metric on M.

The 2-fundamental form is:

(6) $\phi(X,Y)=g(X,\varphi Y)\ \forall X,Y\in\mathcal{X}(M)$

On an almost contact manifold we define the tensor:

(7) $N^1(X,Y)=[\varphi X,\varphi Y]-\varphi[\varphi X,Y]-\varphi[X,\varphi Y]+\varphi^2[X,Y]+2d\eta(X,Y)\xi\ \forall X,Y\in\mathcal{X}(M)$

A manifold with an almost contact metric structure and $N^1=0$ is called **normal manifold**.

An almost contact manifold with $\phi=d\eta$ is called a **contact manifold**. A normal contact manifold is a **Sasakian manifold**.

If on an almost contact manifold we have: $(\nabla_X\varphi)Y=g(X,Y)\xi-\eta(Y)X\ \forall X,Y\in\mathcal{X}(M)$ the manifold is Sasakian. We also have $\nabla_X\xi=-\varphi X\ \forall X\in\mathcal{X}(M)$.

An almost contact manifold is a **Kenmotsu manifold** if $(\nabla_X\varphi)Y=-g(X,\varphi Y)\xi-\eta(Y)\varphi X$, $\nabla_X\xi=X-\eta(X)\xi\ \forall X,Y\in\mathcal{X}(M)$.

A **cosymplectic manifold** is a normal manifold with ϕ and η closed. On a cosymplectic manifold we have: $\nabla_X\varphi=0$, $\nabla_X\xi=0\ \forall X\in\mathcal{X}(M)$.

For every $p\in M$ and $X\in T_pM$, X orthogonal on ξ we define the φ-sectional curvature like $K(X,\varphi X)$ where K is the sectional curvature.

3. A general type of almost contact manifolds

Definition An almost contact manifold M^{2n+1} is called **a general type of almost contact manifold** (short gt-manifold) if there are a (1, 1)-type tensor field $\Psi:\mathcal{X}(M)\to\mathcal{X}(M)$ and a function $\beta\in\mathcal{F}(M)$ which satisfy the following conditions:

(8) $(\nabla_X\varphi)Y=g(\Psi X,Y)\xi-\eta(Y)\Psi X\ \forall X,Y\in\mathcal{X}(M)$

(9) $\nabla_X\xi=-\Psi\varphi X\ \forall X\in\mathcal{X}(M)$

(10) $g(\Psi X,X)=\beta\ \forall X\perp\xi$, $g(X,X)=1$

(11) $\nabla_\xi \Psi=0$

In what follows for the simplification we write:

(12) $\eta(\Psi\xi)=\alpha$

Let in (8) $Y=\xi$. We obtain:

(13) $-\varphi\nabla_X\xi=\eta(\Psi X)\xi-\Psi X \ \forall X\in X(M)$

Applying φ in (13) we obtain:

(14) $\varphi\Psi=\Psi\varphi$

From (9),(13) we have:

(15) $\eta(\Psi X)\xi=\eta(X)\Psi\xi \ \forall X\in X(M)$

For $X=\xi$ in (15) and using (12) we have:

(16) $\Psi\xi=\alpha\xi$

and

(17) $\eta(\Psi X)=\alpha\eta(X) \ \forall X\in X(M)$

From (17) we obtain that the contact distribution $D=\{X \mid \eta(X)=0\}$ is invariant through Ψ.

From (9) we obtain that

(18) $\nabla_\xi\xi=0$

In consequence we have the following:

Theorem 1 In a gt-manifold the integral curves of ξ are geodesics.

Using (8),(16) we have also:

(19) $\nabla_\xi\varphi=0$

Now if in (10) X is not unitary we have $g(\Psi X,X)=\beta g(X,X) \ \forall X\perp\xi$ and puting $X=Y-\eta(Y)\xi$ we obtain:

(20) $g(\Psi Y,Y)=\beta(Y,Y)+(\alpha-\beta)\eta^2(Y) \ \forall Y\in X(M)$

Reciprocally, from (20) we obtain (10).

Lemma 2 On an almost contact manifold M^{2n+1} which satisfy (8),(9) we have that (10) is equivalent with $d\eta=\beta\phi$.

Proof We have seen that (10) is equivalent with (20). Let suppose that (20) are valid. Polarizing, we obtain:

(21) $g(\Psi X,Y)+g(\Psi Y,X)=2\beta g(X,Y)+2(\alpha-\beta)\eta(X)\eta(Y) \ \forall X,Y\in X(M)$

We have also $(\nabla_X\eta)Y=\nabla_X g(Y,\xi)-g(\nabla_X Y,\xi)=g(Y,\nabla_X\xi)=g(\Psi X,\varphi Y)$ and

(22) $2d\eta(X,Y)=(\nabla_X\eta)Y-(\nabla_Y\eta)X=g(\Psi X,\varphi Y)-g(\Psi Y,\varphi X) \ \forall X,Y\in X(M)$

Writing (21) for $Y\rightarrow\varphi Y$ we obtain:

(23) $2\beta\phi(X,Y)=g(\Psi X,\varphi Y)-g(\Psi Y,\varphi X)\ \forall X,Y\in\mathcal{X}(M)$

From (22),(23) we have that:

(24) $d\eta=\beta\phi$

Suppose now that (24) are valid. Going back, we obtain (23) and for $X\rightarrow\varphi Y$ we obtain (20). Q. E. D.

From (20) we obtain also a formula which we need later:

(25) $\operatorname{tr}\Psi=2n\beta+\alpha$

where $\operatorname{tr}\Psi$ is the trace of the operator Ψ.

From (6),(8) we have:

(26) $3d\phi(X,Y,Z)=X\phi(Y,Z)-Y\phi(X,Z)+Z\phi(X,Y)-\phi([X,Y],Z)+\phi([X,Z],Y)-\phi([Y,Z],X)=g(Y,(\nabla_X\varphi)Z)-g(X,(\nabla_Y\varphi)Z)+g(X,(\nabla_Z\varphi)Z)=\eta(X)[g(\Psi Z,Y)-g(\Psi Y,Z)]+\eta(Y)[g(\Psi X,Z)-g(\Psi Z,X)]+\eta(Z)[g(\Psi Y,X)-g(\Psi X,Y)]\ \forall X,Y,Z\in\mathcal{X}(M)$

From (24) we have:

Theorem 3 A gt-manifold with $\beta=0$ has η closed.

From (26) we obtain:

Theorem 4 A gt-manifold with Ψ a symmetric operator has ϕ closed.

From (7),(8),(24) we obtain:

(27) $N^1(X,Y)=0\ \forall X,Y\in\mathcal{X}(M)$

therefore we have:

Theorem 5 A gt-manifold is a normal manifold.

4. Examples

1. For $\Psi=I$ and $\beta=1$ we obtain Sasakian manifolds

2. For $\Psi=\varphi$ and $\beta=0$ we have Kenmotsu manifolds

3. For $\Psi=0$ and $\beta=0$ we have cosymplectic manifolds

5. Curvature properties

Now we have:

(28) $R(X,Y)\xi=\nabla_X\nabla_Y\xi-\nabla_Y\nabla_Z\xi-\nabla_{[X,Y]}\xi=\alpha\eta(Y)\Psi X-\alpha\eta(X)\Psi Y+\varphi((\nabla_Y\Psi)X)-\varphi((\nabla_X\Psi)Y)$

Using (9), (16) we have:

(29) $(\nabla_X\Psi)\xi=X(\alpha)\xi-\alpha\varphi\Psi X+\varphi\Psi^2X$

For $Y=\xi$ in (28) and using (11),(16),(29) we obtain:

(30) $R(X,\xi)\xi=\Psi^2X-\alpha^2\eta(X)\xi$

From (30) we have:

(31) $K(X,\xi)=g(R(X,\xi)\xi,X)=g(\Psi^2X,X)\ \forall X\perp\xi,\ g(X,X)=1$

On the other hand, from (21) we obtain:

(32) $g(\Psi^2X,X)=-g(\Psi X,\Psi Y)+2\beta g(\Psi X,Y)-2\alpha(\alpha-\beta)\eta(X)\eta(Y)$

Using now (31),(32) we obtain finally:

(33) $K(X,\xi)=2\beta^2-g(\Psi X,\Psi X)\ \forall X\perp\xi,\ g(X,X)=1$

Theorem 6 A gt-manifold has $K(X,\xi)\leq 2\beta^2$ where $X\perp\xi,\ g(X,X)=1$

Corollary 7 A gt-manifold with $\beta=0$ has $K(X,\xi)\leq 0$.

We now define a (0,4)-tensor field $A:\mathcal{X}(M)^4\rightarrow\mathcal{F}(M)$:

(34) $A(X,Y,Z,V)=g(\varphi X,\Psi Z)g(\varphi Y,\Psi V)-g(X,\Psi Z)g(Y,\Psi V)\ \forall X,Y,Z,V\in\mathcal{X}(M)$

We obtain immediately:

(35) $A(X,Y,Z,V)=A(Y,X,V,Z)$

(36) $A(\varphi X,\varphi Y,Z,V)=A(X,Y,\varphi Z,\varphi V)=-A(X,Y,Z,V)$

$A(\varphi X,\varphi Y,\varphi Z,\varphi V)=A(X,Y,Z,V)$

$A(\varphi X,Y,Z,V)=A(X,\varphi Y,Z,V)$

$A(X,Y,\varphi Z,V)=A(X,Y,Z,\varphi V)\ \forall X,Y,Z,V\perp\xi$

We also define $B:\mathcal{X}(M)^4\rightarrow\mathcal{F}(M)$ a (0,4)-tensor field:

(37) $B(X,Y,Z,V)=A(X,Y,Z,V)-A(X,Y,V,Z)$

We have from (35),(36),(37) that:

(38) $B(X,Y,Z,V)=B(Y,X,V,Z)=-B(Y,X,Z,V)=-B(X,Y,V,Z)$

$B(\varphi X,Y,Z,\varphi V)=B(X,Y,Z,V)\ \forall X,Y,Z,V\perp\xi$

Using now (8),(9),(34)-(38) we can prove that:

(39) $R(\varphi X,\varphi Y,\varphi Z,\varphi V)=R(X,Y,Z,V)+B(X,Y,Z,V)-B(V,Z,Y,X)$

$R(X,Y,\varphi Z,\varphi V)=R(X,Y,Z,V)+B(V,Z,Y,X)$

$R(\varphi X,\varphi Y,Z,V)=R(X,Y,V,Z)+B(X,Y,Z,V)$

$R(X,\varphi Y,Z,\varphi V)+R(\varphi X,Y,Z,\varphi V)=B(X,Y,V,Z)\ \forall X,Y,Z,V\perp\xi$

Let suppose now that $K(X,\varphi X)=K=$constant. We have:

Theorem 8 If a gt-manifold has constant φ-sectional curvature then:

(40) $$\begin{aligned}4R(X,Y,Z,V)=&2B(X,Y,V,Z)+B(X,V,Y,Z)+B(X,Z,V,Y)+\\&4g((\nabla_Y\Psi)X-(\nabla_X\Psi)Y,\eta(Z)\varphi Y-\eta(V)\varphi Z)+\\&4g((\nabla_V\Psi)Z-(\nabla_Z\Psi)V,\eta(X)\varphi Y-\eta(Y)\varphi X)+\\&\eta(V)\eta(Y)((3\alpha-8\beta)g(\Psi X,Z)+(2\alpha\beta-K)g(X,Z)+4g(\Psi X,\Psi Z))-\\&\eta(Y)\eta(Z)((3\alpha-8\beta)g(\Psi X,V)+(2\alpha\beta-K)g(X,V)+4g(\Psi X,\Psi V))+\\&\eta(X)\eta(Z)((\alpha-8\beta)g(\Psi Y,V)+(4\alpha\beta-K)g(Y,V)+4g(\Psi Y,\Psi V))-\\&\eta(X)\eta(V)((\alpha-8\beta)g(\Psi Y,Z)+(4\alpha\beta-K)g(Y,Z)+4g(\Psi Y,\Psi Z))+\\&\alpha\eta(X)\eta(Y)[2g(\Psi Z,V)-2\beta g(Z,V)+2(\alpha-\beta)\eta(Z)\eta(V)]+\\&K[g(X,Z)g(Y,V)-g(X,V)g(Y,Z)+\phi(X,Z)\phi(Y,V)-\\&\phi(X,V)\phi(Y,Z)+2\phi(X,Y)\phi(Z,V)]\ \forall X,Y,Z,V\in\mathcal{X}(M)\end{aligned}$$

with the above notations and $R(X,Y,Z,V)=g(R(X,Y)V,Z)$.

Proof From the hypothesis, we have:

(41) $R(X,\varphi X,X,\varphi X)=Kg(X,X)^2\ \forall X\perp\xi$

For $X\to X+Y$ in (41) then $X\to X-Y$ in (41) and adding:

(42)
$2R(X,\varphi X,Y,\varphi Y)+2R(X,\varphi Y,Y,\varphi X)+R(Y,\varphi X,Y,\varphi X)+R(X,\varphi Y,X,\varphi Y)=4Kg(X,Y)^2+2Kg(X,X)g(Y,Y)\ \forall X,Y\perp\xi$

If in (42) we put $X\rightarrow X+\varphi Z$ then in what we obtained $Y\rightarrow Y+\varphi V$ and using (39):

(43)
$2R(X,Z,Y,V)+2R(X,V,Z,Y)+R(\varphi X,Y,\varphi V,Z)=2K[g(X,Y)g(Z,V)+\phi(X,V)\phi(Y,Z)+\phi(X,Z)\phi(Y,V)+B(X,Z,V,Y)+B(V,X,Y,Z)+B(Y,\varphi X,\varphi V,Z)\ \forall X,Y,Z,V\perp\xi$

If in ((43) we change Y with Z and subtract from (43) we have:

(44) $4R(X,Y,V,Z)=2B(X,V,Z,Y)+B(X,Z,V,Y)+B(X,Y,Z,V)+K[g(X,Y)g(Z,V)-g(X,Z)g(Y,V)+2\phi(X,V)\phi(Y,Z)+\phi(X,Z)\phi(Y,V)-\phi(X,Y)\phi(Z,V)]\ \forall X,Y,Z,V\perp\xi$

If in (44) we replace X with $X-2\eta(X)\xi$, Y with $Y-\eta(Y)\xi$, Z with $Z-\eta(Z)\xi$ and V with $V-\eta(V)\xi$ we obtain (40). Q.E.D.

If we return now at examples, we obtain the well-known expressions.

The calculus of the Ricci tensor and the scalar of curvature using (25) and (40) is immediate.

About Ricci tensor, let note that on a gt-manifold we have from (30) that:

(45) $Ric(\xi,\xi)=tr\Psi^2-\alpha^2$

6. A special general type of almost contact manifolds

Definition We call **special general type of an almost contact manifold** (short special gt-manifold) a gt-manifold M^{2n+1} which has in addition:

(46) $(\nabla_X\Psi)Y=(\nabla_Y\Psi)X\ \forall X,Y\in\mathcal{X}(M)$

From section 4 we have that Sasakian manifolds and cosymplectic manifolds are special gt-manifolds.

Using (11),(29),(46) we have for $X=\xi$ that

(47) $Y(\alpha)\xi-\alpha\varphi\Psi Y+\varphi\Psi^2Y=0$

From (4),(47) we have:

(48) $Y(\alpha)=0$ therefore α is constant.

(49) $\Psi^2Y-\alpha\Psi Y\in Span(\xi)$

From (49) for $Y=\xi$ we obtain that:

(50) $\Psi^2 Y=\alpha\Psi Y$

From (31) we obtain that:

(51) $K(X,\xi)=\alpha\beta \ \forall X\perp\xi$, $g(X,X)=1$

Using (32),(50) we have:

(52) $g(\Psi X,\Psi Y)=(2\beta-\alpha)g(\Psi X,Y)-2\alpha(\alpha-\beta)\eta(X)\eta(Y) \ \forall X,Y\in\chi(M)$

If we have now $\alpha=2\beta$ from (52) where $X=Y=\xi$ we obtain that $\alpha=\beta=0$ and reciprocally if $\alpha=\beta=0$ we have that $\alpha=2\beta$.

If $\beta=0$ from (52) where $X=Y=\xi$ we obtain $\alpha=0$ and again from (52) we have $\Psi X=0$. From section 4, 3 we have that the manifold is cosymplectic.

Theorem 9 A special gt-manifold is cosymplectic, if and only if $\beta=0$.

Suppose now that the manifold is not cosymplectic. Interchanging X and Y in (52) and subtract from it:

(53) $(2\beta-\alpha)[g(\Psi X,Y)-g(\Psi Y,X)]=0 \ \forall X,Y\in\chi(M)$

From the hypothesis we have that $2\beta\neq\alpha$ then

(54) $g(\Psi X,Y)=g(\Psi Y,X) \ \forall X,Y\in\chi(M)$

therefore Ψ is a symmetric operator.

Using the facts that a cosymplectic manifold has ϕ closed and the theorem 4, we conclude:

Theorem 10 A special gt-manifold has ϕ closed.

We can now reformulate the theorem 8:

Theorem 11 If a special gt-manifold which is not cosymplectic has constant φ-sectional curvature then:

(55) $4R(X,Y,Z,V)=g(\varphi X,\Psi V)g(\varphi Y,\Psi Z)+g(\varphi X,\Psi Z)g(\varphi V,\Psi Y)-2g(\varphi X,\Psi Y)g(\varphi Z,\Psi V)+$

$3g(X,\Psi Z)g(Y,\Psi V)-3g(X,\Psi V)g(Y,\Psi Z)+$

$\eta(V)\eta(Y)((2\alpha\beta-K)g(X,Z)+\alpha g(\Psi X,Z))-$

$$\eta(Y)\eta(Z)((2\alpha\beta-K)g(X,V)+\alpha g(\Psi X,V))+$$
$$\eta(X)\eta(Z)((4\alpha\beta-K)g(Y,V)-3\alpha g(\Psi Y,V))-$$
$$\eta(X)\eta(V)((4\alpha\beta-K)g(Y,Z)-3\alpha g(\Psi Y,Z))+$$
$$\alpha\eta(X)\eta(Y)[2g(\Psi Z,V)-2\beta g(Z,V)+2(\alpha-\beta)\eta(Z)\eta(V)]+$$
$$K[g(X,Z)g(Y,V)-g(X,V)g(Y,Z)+\phi(X,Z)\phi(Y,V)-$$
$$\phi(X,V)\phi(Y,Z)+2\phi(X,Y)\phi(Z,V)]\ \forall X,Y,Z,V\in X(M)$$

where $R(X,Y,Z,V)=g(R(X,Y)V,Z)$ and K is the constant φ-sectional curvature.

From (55) we obtain also:

(56) $2Ric(X,Y)=\eta(X)\eta(Y)(7\alpha^2+(n-6)\alpha\beta-K(n+1))+g(X,Y)(\alpha\beta+K(n+1))+$

$g(\varphi X,Y)(\alpha+3\beta(n-1))\ \forall X,Y\in X(M)$

Ric being the Ricci tensor on M^{2n+1}.

(57) $S=4\alpha^2+(3n-4)\alpha\beta+3n(n-1)\beta^2$

where S is the scalar of curvature.

From (57) we obtain immediately:

Theorem 12 A special gt-manifold, not cosymplectic, having constant φ-sectional curvature and of dimension greater than 3 has positive scalar of curvature.

Almost Hermitian manifolds with J-invariant sectional curvature

Let (M,g) a differentiable manifold with the metric tensor g. M is named **almost Hermitian** if there exists an endomorphism $J:X(M)\to X(M)$ of the Lie algebra of tensor fields $X(M)$ such that $J^2=-I$ and g is J-invariant that is $g(JX,JY)=g(X,Y)\ \forall X,Y\in X(M)$.

In [4] L. Vanhecke defines **RK-manifolds** like manifolds almost hermitian with J-invariant curvature Riemann tensor, that is $R(JX,JY,JZ,JV)=R(X,Y,Z,V)$ $\forall X,Y,Z,V\in X(M)$.

In [3] are defined **para-Kähler manifolds** like almost hermitian manifolds with $R(X,Y,JZ,JV)=R(X,Y,Z,V)\ \forall X,Y,Z,V\in X(M)$.

A **Kähler manifold** is an almost Hermitian manifold for which the 2-fundamental form is closed, where $\Phi(X,Y)=g(JX,Y)\ \forall X,Y\in X(M)$ and the Nijenhuis tensor corresponding to J vanishes. In a Kähler manifold we have ([1]): $R(X,JY,Z,V)=R(Y,JX,Z,V)\ \forall X,Y,Z,V\in X(M)$.

We have, in consequence, that Kähler manifolds are para-Kähler which their turn are RK-manifolds. Let note the sectional curvature by the 2-plane (X,Y) in any point of the manifold with k(X,Y) and $K(X,Y)=k(X,Y)[g(X,X)g(Y,Y)-g(X,Y)^2]$. We note also H(X)=k(X,JX) the holomorphic sectional curvature corresponding to X. It is proved in [5] that on a RK-manifold we have k(X,Y)=k(JX,JY), k(X,JY)=k(JX,Y), S(X,Y)=S(JX,JY), S(X,JY)+S(JX,Y)=0 $\forall X,Y\in\mathcal{X}(M)$ where S is the Ricci tensor.

In this paper I shall enlarge the RK-manifolds class and I shall study some properties of these manifolds.

2. Almost RK-manifolds

Definition 1 An **almost RK-manifold** (short **RKA-manifold**) is an almost Hermitian manifold for which K(X,Y)=K(JX,JY) $\forall X,Y\in\mathcal{X}(M)$.

Remarks An RK-manifold is an RKA-manifold. Manifolds with constant curvature are also RKA-manifolds.

From the definition follows immediately that:

(1) R(X,Y,V,Z)+R(X,Z,V,Y)=R(JX,JY,JV,JZ)+R(JX,JZ,JV,JY) $\forall X,Y,Z,V\in\mathcal{X}(M)$

If we take an orthonormal basis in M: $X_1,...,X_n$ and put $Y=Z=X_i$ and summing for i, we obtain; S(X,V)=S(JX,JV) $\forall X,V\in\mathcal{X}(M)$. In consequence, the property of the Ricci tensor to be invariant at the action of J remains valid in RKA-manifolds.

Let now study the behaviour of RKA-manifolds at the time when they admit some special submanifolds.

Let $(M,g)\subset(\overline{M},\bar{g})$ a submanifold of an almost Hermitian manifold $(\overline{M},\bar{g})$. The Gauss equation is:

(2) $$\overline{R}(X,Y,Z,V)=R(X,Y,Z,V)-\bar{g}(h(X,Z),h(Y,V))+\bar{g}(h(X,V),h(Y,Z))$$

$\forall X,Y,Z,V\in\mathcal{X}(M)$

Definition 2 A **submanifold** $(M,g)\subset(\overline{M},\bar{g})$ is called **totally cuasi-umbilical** if the second fundamental form h is:

$$h(X,Y)=g(X,Y)H+[\omega(X)\omega(Y)+\omega(JX)\omega(JY)]A \quad \forall X,Y\in\mathcal{X}(M)$$

where H is the mean curvature vector and $A\in\mathcal{X}(M)^{\perp}$, ω being a 1-form on M.

In particular, if ω=0 we obtain **totally umbilical submanifolds** and if, in addition H=0, we have **totally geodesic submanifolds**.

For totally cuasi-umbilical submanifolds, we have:

(3) $\overline{K}(X,Y)=K(X,Y)+\bar{g}(H,H)[g^2(X,Y)-g(X,X)g(Y,Y)]+$

$\bar{g}(H,A)[2\omega(X)\omega(Y)g(X,Y)+2\omega(JX)\omega(JY)g(X,Y)-g(X,X)(\omega^2(Y)+\omega^2(JY))-$

$g(Y,Y)(\omega^2(X)+\omega^2(JX))]-\bar{g}(A,A)[\omega(X)\omega(JY)-\omega(Y)\omega(JX)]^2 \ \forall X,Y\in X(M)$

Writing (3) for JX and JY and subtract the two relations, we obtain:

(4) $\overline{K}(JX,JY)-\overline{K}(X,Y)=K(JX,JY)-K(X,Y) \ \forall X,Y\in X(M)$

where we have noted with bar all the quantities on M.

In consequence, we have:

Theorem 1 A totally cuasi-umbilical submanifold of an RKA-manifold is an RKA-manifold.

Corollary 1 A totally umbilical submanifold of an RKA-manifold is an RKA-manifold.

Corollary 2 A totally geodesic submanifold of an RKA-manifold is an RKA-manifold.

The conformal curvature tensor of a manifold is:

(5) $C(X,Y,Z,V)=r(X,Y,Z,V)+g(X,V)L(Y,Z)+g(Y,Z)L(X,V)-g(X,Z)L(Y,V)-$

$g(Y,V)L(X,Z) \ \forall X,Y,Z,V\in X(M)$

where $L(X,Y)=\frac{1}{n-2}\left(S(X,Y)-\frac{\rho}{2(n-1)}g(X,Y)\right)$, ρ being the scalar of curvature.

Immediately, we obtain that:

(6) $C(X,Y,X,Y)-C(JX,JY,JX,JY)=K(X,Y)-K(JX,JY) \ \forall X,Y\in X(M)$

From (6) follows:

Theorem 2 If an RKA-manifold is conformable with another manifold the second is also RKA-manifold.

In the same manner, considering the Weyl projective tensor: $P(X,Y)Z=R(X,Y)Z+\frac{1}{n-1}(S(X,Z)Y-S(Y,Z)X)$ and the Yano concircular tensor $K(X,Y)Z=R(X,Y)Z-\frac{\rho}{n(n-1)}(g(Y,Z)X-g(X,Z)Y)$ where n=dim M, we obtain:

Theorem 3 At projective transformations RKA-manifolds applied on RKA-manifolds.

Theorem 4 At concircular transformations RKA-manifolds applied on RKA-manifolds.

3. RKA-manifolds with punctual constant type

In what follows are necessary some definitions.

Definition 3 Let $p\in M$. A subspace N_p of T_pM is called **holomorphic subspace** if $J(N_p)\subset N_p$ and **antiholomorphic** if $J(N_p)\subset N_p^{\perp}$.

Definition 4 A 2p+1-dimensional subspace is called **2p+1-coholomorphic plane** if it contains a 2p-holomorphic plane.

It shows in [5] that a 2p+1-coholomorphic plane contains a p+1-antiholomorphic plane and $1\leq p\leq q-1$ where dim M=2q.

Definition 5 An almost Hermitian manifold has **constant type** in $p\in M$ if for any $X\in T_pM$ we have: $\lambda(X,Y)=\lambda(X,Z)$ where (X,Y), (X,Z) are antiholomorphic planes, $g(Y,Y)=g(Z,Z)$ and $\lambda(X,Y)=R(X,Y,X,Y)-R(X,Y,JX,JY)$. If the **manifold** has constant type in every point $p\in M$ it is called **with punctual constant type**.

Definition 6 An almost hermitian manifold M satisfies the axiom of (2p+1)-coholomorphic spheres if for any $m\in M$ and any 2p+1-coholomorphic plane N_m of T_pM it exists a 2p+1-dimensional totally umbilical submanifold S in order to $m\in S$ and $T_mS=N_m$ with p fixed integer and $2\leq p\leq q-1$, dim M=2q.

In the same manner like in [4] we shall prove the following:

Theorem 5 Let M an RKA-manifold with punctual constant type. If M satisfy the axiom of 2p+1-coholomorphic spheres for some p and if dim $M\geq 6$ then the holomorphic sectional curvature depends only from the point.

Proof Let $m\in M$ We consider two orthonormal vectors X,Y in T_pM in order to (X,Y) is an antiholomorphic plane. We take now a 2p+1-coholomorphic plane N_m which contains X,Y,JX and JY is normal to N_m. From the axiom of 2p+1-coholomorphic spheres, it exists a 2p+1-totally umbilical submanifold S in order to $m\in S$ and $T_mS=N_m$. Let now the Codazzi equation for a totally umbilical submanifold:

(7) $(R(X,Y)Z)^{\perp}=g(Y,Z)D_XH-g(X,Z)D_YH\ \forall X,Y,Z\in \mathcal{X}(M)$

where D is the connection of the normal fibre bundle of S in M.

If in (7) we consider X,JX,Y we obtain $(R(X,JX)Y)^{\perp}=0$. But JY is normal to N_m therefore:

(8) $R(X,JX,Y,JY)=0\ \forall X,Y\in T_mM$ with (X,Y) an antiholomorphic plane.

(X+Y,JX-JY) is obvious an antiholomorphic plane then, using (1),(8) follows:

(9) $K(X+Y,JX-JY)=H(X)+H(Y)+2K(X,JY)+2K(X,Y)-2\lambda(X,Y)$

Also, from (8) we have:

(10) $K(X,Y)+K(X,JY)=\lambda(X,Y)+\lambda(X,JY)$

We take in (10) X+Y and JX-JY instead of X and Y:

(11) $K(X+Y,JX-JY)+K(X+Y,X-Y)=\lambda(X+Y,JX-JY)+\lambda(X+Y,X-Y)$

After elementary computations, we have:

(12) $K(X+Y,X-Y)=4K(X,Y)$

(13) $\lambda(X+Y,JX-JY)=4\lambda(X,JY)$

(14) $\lambda(X+Y,X-Y)=4\lambda(X,Y)$

Using (12),(13),(14) in (11) we obtain:

(15) $K(X+Y,JX-JY)=-4K(X,Y)+4\lambda(X,JY)+4\lambda(X,Y)$

On the other hand we have:

(16) $K(X,JY)=\lambda(X,Y)+\lambda(X,JY)-K(X,Y)$

Using now (15),(16) in (9) we obtain:

(17) $K(X,Y)=\frac{1}{2}\lambda(X,JY)+\lambda(X,Y)-\frac{1}{4}\left(H(X)+H(Y)\right)$

If we put in (17) JY instead of Y we have:

(18) $K(X,JY)=\frac{1}{2}\lambda(X,Y)+\lambda(X,JY)-\frac{1}{4}\left(H(X)+H(Y)\right)$

From (17) and (18) follows:

(19) $\lambda(X,Y)+\lambda(X,JY)=H(X)+H(Y)$

If M has constant punctual type, let note him with α, we obtain:

(20) $H(X)+H(Y)=2\alpha$.

But dim $M\geq 6$ then $H(X)=\alpha$. The theorem is completely proved.

REFERENCES:

1. Blair, D. E., *Contact manifolds in Riemannian Geometry*, Lecture Notes in Math., No 509, Springer Verlag, Berlin-Heidelberg-New York, 1976;
2. Gheorghiev, Gh., Oproiu, V., *Varietăţi diferenţiabile finit şi infinit dimensionale*, vol. II, Bucureşti, Editura Academică, R.S.R., 1979;
3. Ioan, C. A., *The axiom of 2p+1-coholomorphic C-spheres for Kähler varieties*, Lucrările Conferinţei Naţionale de Geometrie, 1986;
4. Kenmotsu, K., *A class of almost contact Riemannian manifolds*, Tohoku Math. J., 24 (1972);
5. Kobayashi, M., *Contact generic submanifolds of a certain class of almost contact manifolds*, Tensor N.S., vol. 48 (1989);

6. Rizza, G. B., *Varieta parakählerіane*, Ann. di matem., 98, 1974;
7. Vanhecke, L., *Almost H-manifolds with J-invariant Riemann curvature tensor*, Rend.Sem.Matem, Torino, 1976;
8. Vanhecke, L., *The axiom of coholomorphic 2p+1-spheres for some Hermitian manifolds*, Tensor N. S., 30, 1976.

LEGAL AND ACCOUNTING ASPECTS OF THE WINDING-UP REORGANISATION

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Abstract: *Ceasing the existence of any company requires the performing of certain operations meant to put an end to firm activity and breaking off of its legal person status. These operations are directly connected to company's liquidation procedures.*

For the company to perform its debt payment operations, it has to convert its possessions into money. Company liquidation, as a step subsequent to its dissolution, is governed by certain principles which outline the legal status of the firm in liquidation.

Keywords: company dissolution, accounting law, patrimony assets

Jel Classification*: M4 - Accounting and Auditing, M41 – Accounting, M - Business Administration and Business Economics; Marketing; Accounting*

Ceasing the existence of any company requires the performing of certain operations meant to put an end to firm activity and break off its legal person status. These operations are directly connected to company liquidation procedures.

Subsequent to dissolution, the new status of the company does not allow it to perform new trade operations. However, operations yet unfolding must be completed that is the company has to make the most of those rights originating in the legal activities that are previous to the dissolution.

For the company to perform its debt payment operations, it has to convert its possessions into money, by way of public action.

Finally, net assets are to be divided among partners, in strict compliance with their own rights.

Company liquidation, as a step subsequent to its dissolution, is governed by certain principles which outline the legal status of the firm in liquidation.

The general principles co-ordinating company's liquidation are the following:

1. the legal person status of the company is a necessary step for the liquidation to proceed;
2. liquidation is to be performed in the best interest of partners;
3. firm's liquidation is optional and by no means compulsory.

The winding up the company has certain effects upon its status. Thus, its aims and objectives can be noticed to change according to liquidation purposes. Then, company superintendents are to be replaced with liquidators, the latter becoming the managing board of the company. Finally, company's administration is handed over to liquidators, which are to administrate the winding-up firm.

Liquidators are those persons changed with organizing and leading firm winding-up operations. Considering their role in administrating the company in clearance, it is the law that settles the conditions of their appointment, competence and responsibilities.

In the absence of any legal restraint, liquidators' may as well be partners or persons outside the company. Law does accept the case in which administrators them selves become liquidators.

As the liquidation step does not allow for new operations to begin, any dormant partner may become a liquidator. Liquidators are appointed by partner assembly decision. They are considered as firm fiduciaries and have all competences deriving from this position. The managers' commission is considered in terms stipulated by law and by contract. Certain prerogatives of liquidators are granted by partners having the same majority as that required in their appointment.

Besides partnership – originated prerogatives, art.178 of Law 31/1990 stipulates quite a series of other puissance warrants of liquidators:

1. they must perform and complete the trade operations involving the liquidation process;
2. they have to wind up as well, as they cash the company debts;
3. they are indebted to put up to action all company movable and fixed assets;
4. they may contract bill obligations and loans, not pertaining to mortgage, and sing up any other paper referring to the liquidation;
5. they may sue or be sued, if this is in the best interest of the liquidation.

Firm clearing off does concern the performing of several operations resulting in the liquidation of the company patrimony. These operations consist in liquidating firm's assets and liabilities. The purpose of these assets and liability – winding up procedures is that of converting company's assets into money so as to pay off firm's debts. Any contingent net assets are to be distributed to extant partners.

Clearance sale operations affecting firm's assets refer to converting firm's patrimony into money and cash all debts owed by the third parties.

Converting company goods into money is performed by public auction. According to legal provisions, liquidators can sell by public auction any movable or real asset belonging to the company (art.178 letter c). Law 31/1990). As a precautionary step, law does not allow liquidators to sell company's assets, that is it bans their selling firm's patrimony at an overall contractual price. Consequently, each asset to be put up auction is to receive an individual assessment.

Firm liability liquidation stands for paying off all company debts to its creditors. Liability winding up is performed by liquidators in a strict compliance with legal provisions. Paying off the debts owed to creditors is to be worked out with that money resulted from the clearance sale of firm assets. As shown above, in order to pay off the debts, liquidators may legally contract bill obligations or contracts.

As the winding up procedure does not influence the legal interdependence between the company and its creditors, debt paying off is to be affected completely as well as scheduled for a precise settling day.

When the company ceases to exist, as a consequence of its dissolution and liquidation, partners must each receive a share equal to that formerly contributed to either founding the company or increase its registered capital; they ought as well to receive a share of the unearmarking benefits. However, such rights can be turned to account only after having paid off all debts owed to company creditors and only if a positive balance has been left.

Sometimes, firm's assets do weigh a lot as compared to liabilities, so liquidators can pay partners certain amounts in the owed money account, before concluding clearing off operations.

However, mostly, it is after having concluded winding up operations that liquidators can find whether there are net assets to further be divided among partners. In this respect, liquidators must work out the final balance and, if it is the case, make suitable propositions to split up the net assets and distribute them to partners.

After having ended the operations of distributing the net assets among partners, company's liquidation is concluded. Two last formalities are to be settled so as liquidation consequences to finally work:

1. the firm is to be erased from the Register of Companies;
2. steps must be taken to keep up cash books and other company documents intact.

The end of winding up operations and of company's existence, as a legal person, is connected to the responsibility for any possible debt owed to creditors that did not receive their money all along the clearing off process.

If the clearance sale is over and the company does no longer exist (that is it has been erased form the Register of the Companies), the responsibility for social obligations is that of the partners who, according to the law, have unlimited bondage for social obligations. This is the case of general partnership associates and limited partnership general partakers.

Dissolution cases mentioned by Title IV Chapter 1 in the Law of Companies 31/1990, republished, may be classified of follows:

1. *General cases* of dissolution that may be applied to all types of company (art.222/1/):
    a) the elapse of the time period settled for company existence;
    b) the impossibility of carrying out the object aimed at by the company or, on the contrary, its achievement;
    c) the company nullity resolution;
    d) law decision, at the request of any partner, if it is based on solid grounds, together with serious disagreements among partners, which do not allow the company to operate properly;
    e) firm bankruptcy;
    f) other cases stipulated by the law or the company's founding document.
2. *Special cases* of company dissolution with application to certain legal types of company:

a) the dissolution of joint stock companies, in the case and terms stipulated by art.153 Law 31/1990, republished, when the registered capital is reduced under the "legal minimum" – as stipulated by law – or the number of shareholders falls under the legal minimum (art.223 (1) and (3) Law 31/1990 republished);

b) the dissolution of limited partnership with a share capital or of limited liability companies occurring in case of having lost its registered capital, or

according to the case, when having reduced this capital under the legal minimum, if such cases are not deterred in nine months from their detection (art.233 (2) and (3) Law 31/1990, republished);

c) the dissolution of general partnership or of limited liability companies in cases of bankruptcy, expulsion, incapacity, withdrawal or demise of any of the partners, when, subsequent to these causes, there is only one associate left, except for the situation in which the founding documents include an heir-co-participating clause and for the case in which the remaining associate decides upon continuing company existence in the form of a one – partaker Ltd. (art.221 (1) and (2) Law 31/1990 republished);

d) provisions of art. 224 (1) and (2) Law 31/1990, republished, do also refer to limited partnerships and to limited partnerships with a share capital, if additional clauses concern the only either dormant or general partner.

3. Other dissolution clauses pronounced by the Court, at the request of Chamber of Commerce and Territorial Industry or of any other interested party (art. 232 (1) and (2)):

a) the company has no left statutory organs or the latter cannot assemble;

b) the firm has ceased for three years in a row to hand in the accounting balance sheet on other documents which, according to legal provisions, must be handed in at the Register of Companies' Office;

c) the firm has ceased its activity or it has no known location or it partakers vanished or, finally, its premises are not made public, except for the case in which the firm activity has been declared as temporary to fiscal authorities and enlister at the Register of Companies, and inactivity does not go beyond three years from Register enlisting.

Settlement sanctioned by Order 1223 on June 12th 1998 of the Ministry of Finance refer to the following liquidation – concerned operations to be effected at company dissolution, in the cases stipulated by art. 222, 1st paragraph (except for the dissolution pattern mentioned at letter f) and by art. 223 – 232 Law 31/1990 republished:

1. inventorying and assessment of patrimony assets of winding up firms, in conformity with the provisions of point 19 letter b and points 127 – 132 in the Accounting Law Enforcing Regulations no 82/1991 and with the settlements sanctioned by Minister for Finance Order 2388/1995;

2. the working out of the clearing-off company's accounting balance sheet on the code 10 form, as settled in the Methodology Regulations on drawing up,

checking out and centralizing the accounting balance sheet of economic agents, for the year previous to the liquidation;

3. general meeting or partner assembly agreement on which operations are to be effected by the liquidator, on behalf of the company;

4. turning patrimony asset components (selling immovable and stock, cashing debts and temporary investments etc.) to the best account;

5. effecting budget debt remittance operations, paying off social insurance sums, paying all debts to third parties or employees etc.;

6. establishing the winding up result (profit or loss);

7. calculation, retaining or budget remittance of the tax on the profit resulted from company clearance sale, of that on the dividends obtained by shareholders or partners, as a consequence of firm liquidation, or of any other tax, levy or contribution owed by the company at issue;

8. working out the partition – opening balance sheet of the form mentioned at point 2nd;

9. operating the company net asset partition, derived from the liquidation and in compliance with:

- the company status or contract provisions;
- the general meeting decision, as mentioned in the meeting register book;
- the company capital participating quota.

The partition consists in dividing the net assets resulted from the liquidation among shareholders or partners.

The operation to proceed to in case of bankruptcy (which is to be affected in compliance with art.72 – 122 of Law 64/1995, with the subsequent alterations) is the following:

1. the sealing of firm's patrimony assets, which is an operation to be carried out by the insolvency practitioner or, depending on the case, by the liquidator, who are to take all necessary steps in order to preserve all involved assets;

2. the inventorying and assessment of firm patrimonial assets with abiding by the provisions of point 19 letter b) and point 127 – 132 in the Accounting Law Enforcing Regulations no. 82/1991 and by the settlements sanctioned by Order 23388/1995 of the Minister for Finance;

3. working out the liquidation – opening balance sheet, on the code 10 form, as stipulated in the Methodological Norms concerning the drawing up, the

checking out and the centralizing of economic agents' accounting balance sheets, for the year previous to that of the liquidation;

4. the selling of perishable or impending debased goods;

5. the selling of the assets in which the debts is interested (lands, factories, equipment), as quickly as possible, at the best price and with having creditors' previous agreement;

6. the depositing at the bank, in the debtor's account, of all the money resulted from having sold the assets;

7. the establishing of the passive mass, that is the working out of the list of creditors;

8. the earmarking of liquidation – resulted sums, according to the plan of distribution among creditors, in that order stipulated by the law;

9. the working out and approving of the final report;

10. the drawing up of the liquidation – ending balance sheet.

If liquidation goes beyond a fiscal period, liquidators must work out the annual accounting balance sheet and hand it in at the country General Directorate for Public Finances or at the Bucharest D.G. when settled by the Ministry of Public Finances.

REFERENCES:

1. Malciu, L., *Contabilitate aprofundată,* Bucureşti, Editura Economică, 2000;
2. Sebe, L., *Contabilitatea şi fiscalitatea operaţiunilor privind fuziunea şi lichidarea societăţilor comerciale,* Bucureşti, Editura Tribuna Economică, 1998;
3. Negoescu, Gh., *Riscul restructurării*, Galaţi, Editura Latina, 1998;
4. **** Legea 31/1990 privind societăţile comerciale, republicată;*
5. **** Reglementări contabile pentru agenţi economici,* Bucureşti, Editura Economică, 2002.

THE QUALITY RESOURCES

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Abstract: *A significant element characterizing a lasting development in Braila Plain region, but also in any other similar area, would be an environment factor that is the water, with an increasing importance when considered against the high dryness background. Generally speaking, both the consumed water and the consumption structure reflect the quality and quantity of water resources and, implicitly, the economic potential of the region at issue. As for Braila Plain, here there is a paradox to be considered: even if the region is bordered by highly significant rivers (The Danube and Siret) with huge flows – not to mention here the salty water lakes or underground streams with a more or less drinking water – the need of drinking water becomes obvious, mostly in summer and autumn. The climate, morphometric and lithological conditions confer certain peculiarities upon the waters resources of the Northern-Eastern Romanian Plain. One can say about the Braila Plain hydrographical network that it is poor and this is due to the discharge, situated under the value of 1 l/sqkm, but also to the very low relief energy. The allochthonous Rivers: the Danube, Siret, Buzau and Calmatui are affected by the relief climate conditions and also by the size and the geographic position of the hydrographical basins.*

Keywords: *dryness, evapo-perspiration, mineralization, hydrographical basin, climate conditions*

Jel Classification: *Q - Agricultural and Natural Resource Economics; Environmental and Ecological Economics, Q2 - Renewable Resources and Conservation, Q25 - Water*

1. INTRODUCTION

The climate, morphogenetic and lithologic conditions give some peculiarities to the water resources from the North-East Romanian Plain. One can say about the Braila Plain hydrographical net that it is poor and this is due to the way of flowing, which is under 1 l/s. sq. km, but to the reduced relief energy.

The Braila Plain water resources are represented by lakes and underground waters are strongly affected by the dryness influences of the continental climate of this area. Rains do not succeed to constantly feed the lakes or underground waters by infiltration due to evapo-perspiration which exceeds a lot their values in some year's periods, so that lakes often have a temporary character, and the permanent ones have various volume, depending on the water quantity fallen in certain periods. Also, the underground waters have to suffer too, due to both dryness in excess and to permeability of layers from underground horizon cover.

The water resources of lakes and underground waters are qualitatively affected by progressive accumulation of salts under the climate conditions of Braila Plain.

Table no. 1 Water resources quality of Braila Plain

Water resource	**Length (km)**	**Flow (m^3/s)**	**Average Surface (ha)**	**Minerali-sation Character (g/l)**	**Hydro-chemical Charac-ter**	**Type**	**Tempo-rary Charac-ter**
Danube	65	6000	-	0,2-0,5	carbonate	sweet	permanent
Siret	33	210	-	0,9	sodium-chloride	sweet-salt mix	permanent
Buzau	120	27,1	-	0,9-1,0	sodium-chloride	sweet-salt mix	permanent
Calmatui	80	1,4	-	1,5-2,0	chlorate-natrium	sweet-salt mix	permanent
Brotacelul (abandoned branch)	-	-	20	12,0	-	sweet-salt mix	dried
Salt Lake-Batogu (abandoned branch)	-	-	580	170,0	chlorate-magnesium	salt	dried
Bentu Lake Batogu (abandoned branch)	-	-	80	150,0	magnesium -soudium-chloride	salt	dried
Salt Lake (abandoned branch)	-	-	170	80,0	sulphate-sodium	salt	permanent
Ianca Lake (loess lake)	-	-	322	200,0	magnesium sodium	salt	permanent

					chloride		
Plopu Lake (loess lake)	-	-	300	119,0	magnesium sodium chloride	salt	permanent
White Lutu Lake (loess lake)	-	-	500	-	pisciculture facility	-	permanent
Salt Lake Movila Miresii (loess lake)	-	-	200	270,0	chlorate-natrium	salt	permanent
Seaca Lake (loess lake)	-	-	150	-	pisciculture facility	-	permanent
Esna Lake (loess lake)	-	-	260	-	-	sweet passing	permanent
Liscoteanca Lake (as alluvial plain)	-	-	64	-	-	sweet-salt mix	dried
Phreatic waters	-	-	-	0,5-1,0 1,0-10,0	acid carbonate sulphate-chlorides sulphate-chlorate	sweet-salt mix	permanent
Depth waters	-	-	-	0,5-9,0	-	sweet and sweet-salt mix	permanent

2. INFORMATION

Rivers limiting Braila Plain: The Danube, Siret, Buzau and Calmatui are affected not only by the climate and relief conditions, but also by the size and geographic position of the hydrographical fields. As hydrographical fields are larger and rivers have more tributary streams, bigger than their flow and salts quantity is lower, giving them more diversified utilizations. Rivers Calmatui and Buzau, having reduced hydrographical fields and a high degree of mineralization, are much less used as drinking water supply or irrigating water.

Analysing table no. 1, one can see that most of own Braila Plain waters have either a temporary character or large salt content with a sweet-salt mix or salt character. These are not important reserves for developing human activities in this area. Only the Danube and partially Siret River, among surface waters, and East part of depth waters (waters of Fratesti layers), constitute reserves for water supply of localities or for their usage in agriculture and industry.

Lakes' water having a salt character and the concentrate muck can constitute resources for watering treatments. These cannot be accordingly set up for this aim due to many fluctuations of the water lake volume and possibility of getting a sweet-salt mix and even sweet character when humidity is in excess. Only in the case of Lacu Sarat the facilitating of a touristic resort, based on watering treatment, has registered a certain interest, a regional one especially.

Lacu Sarat Braila area is put in an environment protection program, precisely for proper using of the therapeutic lake water and muck properties.

The high dryness specific to Braila Plain conditions favoured the drying of more lakes from this area. Brotacelul Lake, situated near Faurei city, and set up as entertainment base, completely dried, being an obvious example of the non-efficiency of the facilitating works. Nevertheless, even without special facilitating works, the salt lakes of this area are sometimes utilized as watering treatments by local people.

The variation amplitude of the phreatic waters hydrostatic level as well as the high salt content makes it impossible to be used in the local water supply, many Braila Plain places being water fed by either the Danube or by high depth waters.

Concluding, the Braila Plain water resources are insufficient, that is why all the economical branches and social communities apply to the Danube river water resources.

The Statistic Yearly Book for environment specifies the fact that within Braila County there are over 600 possible pollution sources as chimneys, outlet holes, industrial losses and leakages, escapes from industrial and houses waste deposits.

Romania's economic situation has favoured the environment factors state, so that now, the main water pollution economic agents are: SC Celhart Donaris, Aptercol and CET which deliver waste into the Danube through a canal net, but these industrial units have decreased their activity due to economical difficulties.

Consumed water quantity, on one hand, and consumption structure, on the other hand, reflect generally, the water resources quantity and quality and, implicitly the economic potential of the analysed area.

It's a paradox with Braila Plain: while it is bordered on all its sides by water flows, among them some of paramount importance (the Danube and Siret rivers), with high stream discharge, and adding some (salt water) lakes and underground waters (with variable drinking qualities), the drinking water need is acutely felt, particularly in summer and autumn.

Drinking water supply in Braila Plain is made either through a water delivery culvert Gropeni-Ianca-Faurei, or through their area sources.

In the North-Eastern part of Braila county, localities Cotu Lung, Vamesu, Muchea, Latinu, Silistea, Tudor Vladimirescu are supplied by own underground sources, by high depth (over 100 m) supply wells, and water quality is mostly within drinking limits.

In the North-Western part, localities Maxineni, Romanu, Salcia Tudor, Gulianca, Scortaru Nou are supplied by underground sources, by high depth (over 150 m) supply wells. In this area, water quality is mostly not-drinking, exceeding mineral substances (except Maxineni).

In the Western part, localities Gradistea, Sutu, Faurei, Racovita, Ianca, Mircea Voda are supplied by an area water system, by water from Gropeni and from delivery culvert Gropeni-Ianca-Faurei (Danube water treated at Gropeni, Tepes Voda and Ianca stations), and water quality is good (for drinking).

In the South-Western part, the localities Tirlele Filiu, Bordei Verde, Berlesti, Ciresu, Batogu are supplied by an area water system from Ianca, from main pipe, water quality is mostly within drinking limits.

In the South-Eastern part, the localities Unirea, Tufesti, Lanurile, Viziru, Cuza Voda are supplied by 60-80 m depth wells and water quality is out of drinking limit, exceeding mineral substances.

It was found that around locality of Tepeş Vodă, the wells are infiltrated with oil, and the water cannot be used, not even for the animals. In 1999, deficiencies in centralized system water supply have been found in localities Gropeni, Ianca, Movila Miresei, Faurei and Insurăţei. As solution, water supply from high depth reactivated and desanded wells have been proposed. Water from wells cannot be chlorinated; according to the valid laws in localities with less than 5,000 inhabitants that benefit of sanitary protection of the high depth wells, water should not be chlorinated. Local authorities proposed themselves to purchase chlorination devices, so that such situations should be prevented in the future.

At the end of 2000, water supply of Braila city, North area from Galati-Serbesti pipe-line delivering drinking water from Vrancea County has been stopped. This Braila North area has been connected to the main water supply city pipe-line, so that now the entire town is water fed from the Danube, Chiscani area.

The locality Baldovineşti, which was benefiting of drinking water from Vrancea County, as Serbeşti pipe-line was transiting this place, remained without drinking water, and further interrupted the water supply to North area of Braila. The inhabitants of Baldovineşti remained with no drinking water source, the few wells of

this area having non-drinking water, with a strong oil taste. Resuming of centralized water supply system depends also on the possibilities of consumption countering of this place.

The total length of the drinking water distribution net has increased in the last years, offering the possibility to another 65 rural localities to be supplied with drinking water.

Table no. 2 Simple total length of the drinking water distribution net (km)

Year	Total	out of which towns	Localities with distribution net	Towns
1991	1014,0	670,0	55	4
1992	1021,5	681,1	55	4
1993	1024,4	683,0	55	4
1994	1049,7	707,7	55	4
1995	1056,7	708,6	56	4
1996	1121,8	699,3	61	4
1997	1132,8	705,4	61	4
1998	1137,5	695,8	61	4
1999	1139,3	697,6	61	4
2000	1080,4	706,6	65	4

(Source: Yearly Book of Braila County, 2002)

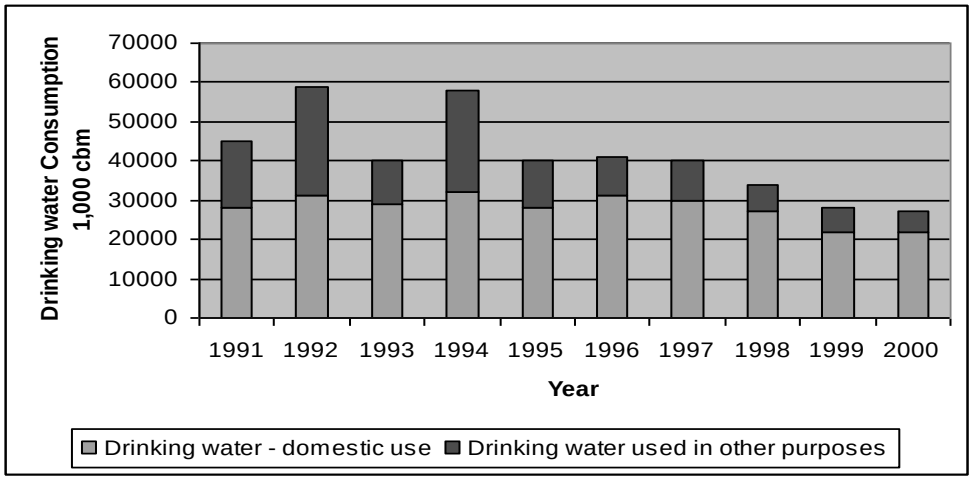
Braila County counts 127 rural localities and 4 urban localities. One can see from Table no. 2 that the drinking water distribution has been entirely solved for the urban environment and, within rural environment, ensuring of drinking water through the distribution net only for 51 % of localities.

The drinking water problem is not solved yet for the total area of Braila Plain due also to natural (missing local drinking water reserves) and economical conditions of the county, and no improving solutions can be forecast in the near future.

Analysing the total drinking water distribution and the domestic use consumption, it is observed a continuous decrease during period 1991-2000, the value of the total supplied drinking water volume in 2000 is 65% of the 1991 value.

The drinking water volume, supplied for domestic use, is registering fluctuations, but for the last period it was found a steady decrease, along with the population receding.

Figure 1 Water consumption evolution in Braila County during 1991-2000 (thousand cm)



The domestic use water consumption per capita has also registered fluctuations, with a more important decrease in the last years, reaching the value of 65.3 cbm/year, which is under the country's average.

The reducing of Braila County economic power has determined the abolishing or activity restraining of many agricultural and industrial units, which implicitly led to water consumption decrease in these fields.

As to agriculture, the water quantity used for irrigations and cattle breeding is directly influenced by the climate area with a dry feature, the rainfall level, the structure of cultures, of soil, etc.

Braila County agricultural area set–up for irrigations has decreased from 352,769 ha (1991) to 332,353 ha (2000), meaning that in 2000 this area was 69.7% from total agricultural area, as against 75.5% in 1991.

Besides Braila Plain waters having a more or less drinking character, there are here other water categories – the salt lakes. A special attention has been given to them, by adopting some measures leading to water protection and preservation and to muck therapy qualities. These measures have been materialized in Lacu Sarat location, where there are also facilities typical of water therapy exploitation. To protect these therapy qualities, a series of measures are proposed also for Lacu Sarat, Movila Miresei.

The high salts content of waters and muck of some Braila Plain lakes determined some scientists to propose taking advantage of some minerals from these waters.

Braila Plain non-mineralized waters are usually used as water supply sources for human locations, industrial units or irrigation water. In exchange, Braila Plain mineralized waters can be approached in studies as therapy use, as mineralized natural waters for irrigation of certain soils or as extracting some chemical elements (potassium, magnesium, bromine, iodine, boron and lithium) existing in high enough concentration to be industrially abstracted.

As to irrigation set-up plan, the Eastern area of Braila Plain is fit for recovery with priority on short and medium term, and the Western part is fit to areas already existing which are set-up by irrigation and drain works.

In spite of the steps provided to be taken, the economical activity – perceptibly in decline – does not show that it will act in the direction of pollution preventing, nor the authorized organizations have significant actions. This is also due to the fact that most of industrial units, potentially sources of pollution, either have restrained their activity or have been abolished.

Braila Plain hydrographical network – bounding rivers, lakes and underground waters - is poor.

Lithological and morphometric conditions as well as particular climate of Bărăgan Northern area give some peculiarities to waters from this perimeter.

A continental climate with shades of excess, the semi-endorheic flowing nature, the existing loess layer on almost all the plain surface, all these lead to small slopes of rivers, with effects of meandering and abandoned branches, small and very small flows, sometimes drying up of some streams, feeding of rivers from underground waters, forming lakes in settlement depressions of loess deposits, a high chemism of both surface waters and underground ones.

Braila Plain hydrographical network bears the stamp of the temperate-continental climate and of the relief, formed by relative smooth fields with closed depressions, in which there are temporary or permanent lakes. The hydrographical net of this zone has a very low density, one of the lowest of the country, varying between 0 and 0.3 km/sq.km.

The running waters – the Danube, Siret, Buzău and Calmăţui, bounding Braila Plain - are allochthonous rivers, with a transiting nature.

The surface waters are represented only by Ianca Valley, which practically is dry all the year and by different kinds of lakes, strongly mineralized.

The underground waters are represented by both small depth waters and by high depth ones, with a smaller or higher mineralization degree.

The rivers bounding Brăila Plain (which practically are not part of this relief unity) are important due to the fact that the underground waters from this perimeter are drained by the limiting hydrographical net and there are obvious mutual relations between the underground waters and rivers, especially within flood plains. As to underground waters regime, this is conditioned, first of all, by climate and then by local factors (lithology, slope, relief breaking up degree, streams, lacustrine basins, etc.)

The streams of this region bear the impression of the paleo-geographical changes. Buzau river migrated, leaving more valleys, among them being that of Calmăţui and Rîmnic, until having channelled on the present course; also nowadays, this river has deviations when high floods occur.

A diverting to North of Calmăţui river, downstream of Rubla, has been also noted, where Holocene eluviations of Buzau river have not been felt anymore, and the river could adapt to the new tectonics.

The Ianca Valley is the result of the Danube migration from West to East.

Even The Danube, Siret, Buzau and Calmăţui are not strictly part of Braila Plain, these are closely related to the watery horizons, either during low flows period these are fed from watery basins or during high waters period these can feed the watery basins. At the same time, it takes place a change of chemical substances, influencing the chemism of the underground waters or of the running ones.

In Braila Plain, where lakes and underground waters have a low drinkable degree, the allochthonous/bounding courses represent the main source for water feedings and irrigations.

The Danube borders, the Western part of Braila Plain, has a stream down direction from South to North. Due to a very low region, the slope is small – 0.027‰ – it frequently appears new branches and cloggings on branches with smaller flows and slopes.

After their meeting at Giurgeni-Vadul Oii, forming/closing Balta Ialomitei, the Danube branches divide again in two main branches closing Balta Brailei. The Danube branch, - from Eastern part – Macin Branch (The Old Danube) – bordering Dobrogea, is transporting a low quantity of the Danube waters (13% - 780 cm/s) due to a smaller slope - 0.019‰. The branch is 98 km of length, has an average width of 250 m and a high coefficient of meandering – 1.24. The Western branch – Cremenea – bordering Braila Plain, has a higher slope – 0.027‰ – and is transporting a much higher quantity of waters (67% of Vadu Oii flow – 4,020cm/s). The branch has an

average width of 500 m and a higher coefficient of dividing (2.7). From this branch, other branches are breaking off: Manusoaia, Pasca, Caleea, Arapu and Vilciu having smaller flows.

Cremenea branch is navigable and in its South part receives Calmatui river as affluent. After branches meeting at Braila, the Danube receives Siret river as affluent on its left side.

The analysis of the Danube monthly flow points out high values during March-April and June-July periods. During rainy years, the highest increases are recorded in May and June, and during dry years, some higher increases happen in April. From these increases and decreases of the Danube flow level, a series of consequences for the neighbouring areas are ensuing.

The Danube water meadow, neighboured with Viziru Field, is embanked on all its length. Now, this surface is not covered anymore by lakes and ponds, but it can be used for agriculture. The arranging plan of the Danube water meadow has been carried on more stages along the time.

The water meadow was embanked, then surfaces drawn out the flooding regime needed other land improvement works and therefore, it has been built a net of draining off, over the embankment, of the water of lakes, ponds, rain-fall stagnating in depression areas and water proceeding from infiltrations from the Danube. In this way, it has been ensured a decrease of phreatic level by about 2 – 5 m, but land surfaces still remained – on bottom of the former lakes and ponds or depression areas – with phreatic water near to soil surface which generated an accumulation of salts, gradually from year to year, under dry conditions.

To avoid salts accumulation, it was necessary to increase the measures of draining-drying up ground by deepening and thickening the open canals net, and especially by deepening the collecting sewers, but also by achieving an underground draining system, horizontally (by buried pipes) or vertically (by pumped wells), in order to lower the underground waters of low areas or to intercept the infiltrations from the Danube.

Finally, after lowering the underground water level, there were executed irrigation works. More perimeters have been arranged in the water meadow area: Calmăţui, Gropeni, Chiscani, with three branches and enclosed space near Braila (water meadow area from confluence of the Danube with Siret).

In the roads of Braila Port, springs appeared at the street level when phreatic level was higher, but these have been drained by special works. Even if the terrace front is consolidated by concrete squares, suffusion phenomena appear after long and teeming rains.

Viziru Field, neighboured by the Danube water meadow looks down upon the area by about 10 meters. In the Eastern part of the field, the phreatic waters depth is between 5 and 15 m. Thus, it is the possibility that between the Danube waters and the phreatic waters to exist mutual relations during high floods and longer dry periods (inflow to field phreatic waters and inflow from field to the Danube water meadow, respectively).

Analysing the daily hydrometric levels of the Danube in Braila station during 1986 – 1995, one can build the daily level hydrograph.

Analysing the hydrographs during same period, one can deduct that the river level depends only on the physical and geographic factors, typical to Braila upstream basin.

The 1992 Danube hydrograph shows a period of spring-summer high waters over which high floods generated by rains are superposed, a sudden thawing or the overlapping of both phenomena in the hydrographical basin. To define this type of hydrologic regime, a very important role is played by the affluent rivers descending from the Alpes. The main period of low waters, within the Danube flow, is remarked within summer-autumn, from September-October, when usually very low flows are observed.

At Braila, the average multi-yearly flow is around 6,000 cbm/s, the average solid flow is 28 billion tons (much lower due to upstream accumulative lakes), and water mineralization is 200-500 mg/l and increases in inverse proportion to the flow, predominating the calcium and bicarbonate ions.

The river **Siret** borders the plain on a small part of approx. 33 km, from its confluence with Buzau river up to its flowing into the Danube. On this part, the river has a low slope of about 0.21‰ and an average flow of approx. 230 cbm/s, when discharges into the Danube. The river low slope, as well as the subsidence phenomenon, favours the lateral erosion phenomena and the appearance of abandoned branches.

The highest flows are recorded in spring, from April until June, and minimum flows during November-January. The river waters are classified in the 2nd class quality, being unsuitable to be used as drinking water, but could be used for irrigations.

The river **Buzau** and its water meadow represent the North limit of Braila Plain, bordering it on an approx. 120 km length. This is a young river bed, still dynamic, affected by the subsidence phenomenon and by high floods. The multi-yearly flow recorded at Racovita station is 29.5 cbm/s, and the multi-yearly flow of alluvia in suspension is about 130 kg/s.

Analysing the typical hydrometric levels at Racovita station during 1986-1995, it can be built the daily levels hydrograph.

The analysis of hydrographs shows the fact that Buzau river flow, as a synthesis of what is happening in the basin, is strongly depending on the climate factors and particularly on rain-fall.

It is observed a stage of low waters during winter, when snow-fall is stored at the soil surface due to the low temperatures, without drain generating. Then it follows the phase of spring high waters, generated by the slow snow melting, first in the low areas and then in high ones. Over this phase, it can superpose high floods generated by torrential rains or by sudden snow melting.

During summer, very strong high floods can appear as those registered in 1991, generated by the torrential rains of this season. But during summer-autumn, it is also present the small waters phase, when the lack of rain-fall makes rivers to be fed only from underground. A return of flowing hydrograph is noticed during autumn due to long and low intensity rains. It can also appear high floods, superposing on this stage of hydrologic regime, as occurred in 1991. The analysis of the hydrometric levels, rain-fall and monthly average temperatures in 1991, for Buzau river at Racovita station, comes to support what above exposed.

The distribution chart of the monthly average levels makes evident a main summer minimum point and another secondary winter one. Starting February, water levels and implicitly, the flows gradually increase until May, when the main yearly maximum point is achieved. Further on, the levels gradually decrease to summer minimum points, with a return during autumn to a second secondary maximum point. In the presented case, in September, a strong high flood occurred which disturbed the usual evolution of the regime stages.

Although the Buzau river hydrographs during 1986-1995 varied from year to year, one can say however that the high water levels are in April, May, June, and minimum levels in October, November and January.

Buzau river has a high bed mobility due to alluvia and distinguishes by loss of some water during high level period on abandoned branches Faurei and Ulmu. When high overflow occurs, Buzau river covers the entire meadow up to Surdila Gaiseanca, where through the Buzoele, waters outflow into Calmatui river and from here into the Danube, this being a proof that Buzau river formerly flowed on Calmatui Valley.

In 1969, after a powerful swell of waters, Buzau river left its stream between places of Dedulesti and Maraloiu and created a digression of approx. 20 km, but also it has been found bed water changes among other places like Scortaru Nou, Boarca,

Mihail Kogalniceanu. After this flood, the river settled itself a little bit to East within its meadow, this having as consequential effects the fact that the banks of Jirlau and Amara, placed on left riverside and receiving water through canals from Buzau river, became isolated.

Further to river pendulating within its meadow, parts of old streams remain abandoned beds, in which water can persist until drying up, as happened near Filipesti village where lake Brotacelul has been formed and then used for the purpose of recreation until its drying up.

The winds from North-East and, sometimes, even from West sweep the fluvial sands from the abandoned water beds.

The river slope suffers a big change near Dedulesti, where it decreased by 7 times, favouring the increase of splitting and meandering degree and of stagnating water phenomena.

At its confluence with Siret river, the Buzau river has a meandered course with a 4 m depth only, due to maintaining of same level of river bed with that of its middle course, as well as to flow slowing further to confluence.

The Buzau waters have much lower drinkable qualities than those of Siret and the Danube, a high mineralization (900-1,000 mg/l), and hydrochemical type is sodium-chloride. This type of chemism is owed to carry away sodium-chloride by Slanic and Saratel rivers from the sub-Carpathian zone.

The river **Calmatui** borders the South part of Braila Plain on an approx. 80 km distance. This course springs in the Buzau river alluvial cone. The flow has a West-East direction with a small slope of $0.22‰$ and high meandering (1.82) and splitting (0.23) coefficients. The minor water bed is narrow (20-25 m) and strongly clogged, due to slope features and river sinuosity.

On its right side and upstream of Baragan, the river Calmatui offers abandoned branches, anastomosed courses, lakes. In the summer, when feeding is reduced, limited only to underground, Calmatui river is just a thin water line, irregularly flowing, with puddles in its deeper parts.

The multi-yearly average flow of Calmatui at Ciresu station is 1.1 cbm/s and 1.3 cbm/s at its discharge into the Danube.

Following the hydrograph charts of Ciresu station, it has been remarked that an increase trend of Calmatui waters is registered during April-May-June and a decrease in August and October-November.

Analysing the hydrometric level of Calmatui river over time, either marked by extended drought or humidity excess, it is noticed a dependence between temperatures, rain-fall and flow of a river.

What is typical to the flowing regime of this plain river is the fact that, during winter there are small waters period and it has higher values than those during summer with small waters period. Then, high waters and spring floods period appears earlier as against Buzau river, further to fact that Calmatui river has its integral basin in the plain and in this relief unit, the thawing is an early one. From these reasons, powerful floods are found during March, as happened in 1992. In the rest of the year, it remains valid the fact that the floods, also in this case, can appear in any year season, depending on the rain-fall regime.

In 1995, when more abundant rain-fall occurred, in May and June respectively, and corroborated with lower evapo-perspirations in early spring and much higher in summer, the hydrograph chart shows that waters reached high values in May and September.

Ciresu hydrometric station on Calmatui river has available data only for 1990-1995 period.

Minimum river Calmatui waters in 1995 have been registered in March, April, August, and from October on, being corroborated with either low rain-fall in April and October and high temperatures in August which implies a high direct evapo-perspiration.

At Spiru Haret hydrometric station on Calmatui river, near its discharge into the Danube, hydrographs could be built for the 1986-1995 period.

Analysing these hydrographs, it results that the general trend of the increased Calmatui waters is registered in April-May-June, and decreased levels in August and October-November.

The mineralization of Calmatui river is high (1.5-2 g/l), hydrochemical type is sodium-sulphate and hardness is high (31 German degrees). The areas neighbouring the minor river bed have suffered due to high waters' mineralization, which have stagnated on the surface, during flooding periods, producing salting of soil.

In the zone of Ciresu and Gura Calmatuiului, the limit of Braila Plain, Calmatui river does not receive any affluent.

River Calmatui shows as a water line and during lasting dry periods becomes intermittent. Knowing this aspect of the river and its flowing valley, we realize the assertion, that Calmatui Valley is a former Buzau river valley, is justified. In present, it is accepted the hypothesis that starting from the subsidence movement of the inferior course of the Siret and the Calmatui valley dimensions, surely this valley belonged to a river with a higher flow, as Buzau could be. Another assumption has been formulated by G. M. Murgoci (1906-1907), according to which

the common water meadow of Buzau and Calmatui represented in fact a diffluence area with waters outflowing from Buzau river, through more branches. The same author asserts that, one of branches would have been Calmatui and others, Buzoel with Ianca and Buzau, due to sinking from Siret region, the South branches decreased their flow and lost in importance, and Buzau branch gained in flow.
Nowadays, the Calmatui Valley, considered an old stream of Buzau river, is further subject to geomorphologic phenomena related to subsidence movements. Further to this subsidence movement, an intense alluviation of meadows, flooding of river terraces and digression of rivers took place. As subsidence increases along, the action of water deepening (change of longitudinal profile takes place) ceases, more eluviations is brought to the major water beds, depositing gravel and large sands, and then, due to diminishing of the transport power, a finer material is set down.

During April-May, when waters are higher, Calmatui has a course without intermittences, powerful meandered. Following its flow near places like Ulmu, Liscoteanca and Valea Calmatuiului in May 2001, much differentiations of the river bed are not remarked. This is also due to the fact that most of its Insuratei place upstream flow has been arranged, dams have been built, the water bed has been consolidated by cutting of about 70 meanders (bends) with a view to regularize the river.

The Calmatui valley shows like a dissymmetrical one due to its entire situation in the plain area where aeolian actions from North, North-East, which set up its right bank by loess and sand accumulation, and increased erosion actions to left bank, take place. The right bank is higher and more abrupt, showing a lot of creeks at the plain level; sometimes, the altitude difference between meadow and plain levels reaches approx. 25 m.

Within common meadow of Buzau and Calmatui, there are a lot of abandoned branches by Buzau river, generally named as Buzoele. A stream in this meadow, named Buzoel South, has become a draining canal and discharges now into Calmatui river.

REFERENCES:

1. Botzan, M., & contributiors, *The hydrology of Danube and Danube Delta*, Bucureşti, 1990;
2. Gastescu, P., Gruescu, I. S., *Romanian Counties*, Bucureşti, Editura Academiei, 1973;
3. Stoiu, V., & contributors., *Romanian Counties-Braila*, Bucureşti, Editura Sport-Turism, 1980.

THE COMPONENTS OF THE ORGANIZATIONAL CULTURE

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Abstract: *Knowing that the organizational culture functions constitute the base of notification and capitalization of the major importance, which is having for every company, regardless the domain of activity, dimension, economic potential or belonging to a certain national culture. The importance of the organizational culture is consisting of its functions, the importance is manifesting trough some concrete elements the company level and not only. The organizational culture is allowing the identification and the description of some numerous situations and real facts, of human nature from the company's life, with major implications over the development and the activity results, that weren't taken into consideration in the managerial classic leading. This explains why the elements referring to the organizational culture were accepted very fast by numerous companies' managers from the developed countries.*

Keywords: *the organizations, function, particular form, organizational cultures, mission*

Jel classification*: I - Health, Education, and Welfare, I2 – Education, I21 - Analysis of Education*

1. THE FUNCTIONS AND THE IMPORTANCE OF THE ORGANIZATIONAL CULTURE

The necessity and the importance of studying the organizational cultures are deriving just from these functions. In general, it is appreciated the fact that the organizational culture is carrying out four principal functions, having the possibility of adding others, depending on the nature and the particularizations of the organization. Those functions are:

1. The function of integration of the employees from the company. During this process, the organizational culture can play a deciding role, if we have in view that the integration of the employees is a continuous process, which is not resuming just at the new employees. It is necessary a permanent maintenance of the integration cultural-organization.

2. The guidance function of the employees and the groups of employees for achieving the objectives anticipated of the company. This is a dynamic function, complex and difficult in the same time, if we are viewing the variable, whereby is operating, and namely the human. His mission is to contribute at releasing the latent energies for the employees, for carrying out of some actions unfolded in certain temporal conditions and economic ones, so that the objectives contained in the strategies and politics of the company to be carried out. Adopting some of organizational behaviours is essential on this plan. The principal role in exercising these functions is having the managerial culture, the decisions and these actions form a major component of the human resource management.

3. The function of protection of the company's employees, beside the potential danger of the ambient environment. Always the financial, social, politic, scientific, juridical context are incorporating evolutions which can affect both positively, and negatively the community of the employees from the company. The organizational culture constitutes the support of behaviours and organizational actions of preventive nature or of direct disproval of the negative consequences. Passing the market economy is generating potential threats for the employee's communities from the commercial societies and autonomous administration, exceeding the organizational cultures implicated which have a major role.

4. Keeping function and the transfer of the values and the organizational traditions. This function is often ignored or underestimated. The organizational culture is the principal depositing of values and of traditions specific to every company. It is important, that when the generations are changed from the company, that must be maintained at all time. Beside the proper cultural value, the symbols, the rituals, the legends, etc, from the organization form the human fundament of exercising the precedent functions. Without strong cultures, well known and deeply rooted traditions, it does not exist medium and long term strong firms. The determinant role of the human factor in an organization is the base condition, which few companies ignore, and, implicitly, the preocular and the resources, which are necessary for assuring and increasing the competitiveness of the company.

5. The ensuring function of a properly background for developing the organizational capacity. From this point of view a characteristic of the contemporary

companies is the dependence of the performance of their organizational capacity. This organizational capacity is referring to integrating the specialized knowledge of the employees, integration that is strongly influenced by the organizational culture. As a result, it is necessary that the organizational culture brings forward the composition and maintains some organizational capacity, able to determine fast feed-backs, flexible and according to the opportunities and exogen and endogen changes of the company.

Knowing the functions of the organizational culture represent the base of the notification and revaluating the major importance for each company, regardless its domain of activity, dimension, economic potential or affiliation to a specific national culture. The importance of the organizational culture is consisting just from its functions, this importance is manifested trough some concrete elements at the level of the company. The organizational culture allows the identification and the description of numerous situations and real facts, of human nature for the companies' life with major implications over the developing and the results of the activity, which weren't taken into consideration in the classic managerial approaches. This explains why the elements referring to the organizational culture were accepted by numerous company managers from the developed countries. Frequently, it was noticed in the approach based on the organizational culture, that the pulse of knowledge and understanding of the decisions and managerial actions, on which the concepts and methods of scientific management was based on ration and certain scientific rigidity could not be offered. The managers had grasped that the effectuation of calculations and obtaining numbers, although very useful, they were not succeeding in reflecting the significant intangible elements in a company.
The organizational culture is involving, trough its nature of approaching human-management and it has in view all the employees of the company. It is not possible the knowledge and taking into consideration the elements of the organizational culture without an "immersion" of human reality from the firm. The limits of managerial approaching from distance exceed in this way, based on questionnaires, statistics, etc

2. THE COMPONENTS OF THE ORGANIZATIONAL CULTURE

The components of the organizational culture are vastly intangibles, less visible. Still we can consider that the principal components of the organizational culture are the next elements: the symbols, the behaviours norms, rituals and ceremonies, the rules and the role of the personal, the stories and organizational myths.

1. *The symbols.* In the capacity of major components of the organizational cultures, the symbols offer common meanings or understandings to its components over some organizational elements of group interest, allowing communication and harmonization.

The cultural symbol can be represented by an object, an event or a formula what is serving as an instrument of delivering a message with a specific signification within the company. Trough cultural symbols, there are ways transmitted, by the employees, that reflect the philosophies and values, ideals, beliefs and shared expectations. For example, a symbol may be itself the naming of the organization when represents an essential element trough its activity. The naming of competitive firms become, in time, symbols for what they represent in economy. The emblem or logos of the company is often represented as major symbol for the employees and its customers. A symbolic valuable part is presented as way of decoration, furniture, pictures, colours, etc. used in the organization. In this way, we can affirm that the cultural symbols "serve for expressing some conceptions and to promote certain values and behaviours in the firm". They contribute to the thinking orientation, behaviours and employees actions, crystallizing some organizational behaviour, typical, or predominantly, at the company's level.

2. *The behaviour norms*. This component of the organizational culture are splitting in two categories of norms:

The first category, the best known, is represented by the formal norms, implemented trough official regulations of organizational nature such as: rules of interior order, rule of organization and functioning, descriptions of functions and positions. The documents, to which some decisions are added and adopted by the manager of the firm, contain provisions referring to the employees' behaviour in situations that have significant implications over the operation performance organization: relations Head-subordinate relations, security work, presence in the company, receiving and treating visitors, confidentiality of the information, rewarding the efforts and performance, the penalties provided etc.

The second category of behaviour norms are the informal ones, which have a big influence over the organizational behaviour, although they are not registered in any document. Taking shape during the previous period, the informative norms are establishing the way of approaching and behaving in human situations that are representing a big importance, for the majority of the employees: the holydays of important social events, anniversary of the company, other legal holidays or religious, personal events celebrations of the employees (promotion in position,

birthdays, marriage, children birth, pensioning), etc. In the current activity of the firm, the formal norms and informal interpenetrate, conditioning the development of the organizational behaviour predominance, at the level of the organization.

3. The rituals and the ceremonies. In close connection with the organizational norms are the rituals. Trough those are programmed some events and the progress, promoting and celebrating these values and major behaviours from the framework of organizational culture. A ritual represents a set of planned actions, with a dramatic content, giving a cultural expression to some organizational values, for consolidating them within the organization.

4. The status and the role of the personnel. The status is referring to the hierarchical position and the prestige of an employee within the organization, as they are perceived, usually, by its members. The status is showing that a person is better perceived, competitive and influent comparing with others and vice versa. The status expression of a manager is represented by the difference that the others are showing in a usual way. The status of an employee in a firm is having a triple determination, that is:

- Functional – is reflecting the profession and the type of the achieved activity;
- Hierarchical- reported to the position that the employee occupies, to the level of competence and responsibility;
- Personal or informal- is reflecting the knowledge, qualities, aptitudes and employee skills. The informal status is expressing in fact the perception that the other employees have over the individual values of that person. The personal status can intensify or on the contrary reduce the other two statuses, according to their content.

In an organization those three types of determination interpenetrate so that they generate a global status or overview, which in fact is perceived by the employees and it presents a functional importance. The status of managers is represented trough certain concrete elements: separated offices, superior furniture, personal secretary, etc. The pragmatic expression of the status of a person is represented by the roles on which they actually exercise, regardless the nature of the work progress that is carried out. From here derives the importance for establishing of strong status, which ensures their manifestation as authentic leaders. Within the organizational culture, in firm, the status units two major functions: the achievement of effective communication in an organization and providing incentives in order to encourage the employees. Just their simple listing is sufficient to underline the multiple and major implications of the status, both for the configuration of the

organizational culture as well as for the functionality and performance of the company as an economic entity. It is however necessary to avoid an over evaluation of the status. In management systems, it is generated sometimes a state of organizational discomfort, known as the "pathology of the statutes"

5. *The histories and organizational myths* are having a specific importance, especially in companies with a certain tradition and high performance. The organizational histories are those stories that relate a sequence of events carried on in an organization, which presents a symbolic way of approaching and solving human cases with major implications for employees and/or for the organization. They highlight certain common expectations, shared to all or to a large part of the employees in the form of events that happened in the company. The little histories are narrated repeatedly, the latest version adding details more ore less fictitious, hence contributing to implementing the employees' memory the expectations that they encompass. The little organizational histories contribute shape up certain features of organizational culture and the celebration of "business heroes". Frequently the little histories are structured to highlight the existing tension between the opposing values (equality/inequality, security/ insecurity, etc.) by presenting both sides of the conflict situation and the way of settlement.

Typically, the organizational history is presenting an organizational situation which involves tension and/ or uncertainty, and solving problems represent a way of strengthening the organization and developing some organizational behaviour.

A particular form of organizational histories represents the myths.

The myth that highlights how the organization was born and putts in foreground the essential role played by the founder, that trough his exceptional qualities, labour force and its beliefs contributed to the establishment of financing the enterprise

In firm the myths represent the equivalent of the most popular fairy tales ever told. In general, histories and organizational myths represent the "folklore" of the firm, intended to provide pattern of behaviour for its employees. They frequently refer to "heroes" with major roles in the evolution of the company, around which it was portrayed a certain "aura".

As Peters and Waterman specifies in the paper "In search of excellence", written in 1982, myths have certain characteristics:

- They have an imperative feature, and they are composed of expressions which are more defined by intent than by content;
- Is reflecting an innocent vision, natural reality and ignores the complexity of the encountered situations;

- The fact that the myth is both a tradition and an ending, it is not far from arbitrary or false;
- The relationship between "consumers" and the myth itself is settled more in real terms;
- The myth turns the historical personalities in archetypes and makes permanent use of tautological formulas;

After some authors, all these components of the organizational cultures which are contributing in establishing the organization's identity are expressed trough different ways of manifestation of the organizational cultures, being in intense relation of interpenetration. In practice, the identification and the examination prove to be a very complex and difficult process, but necessary because of multiples and extensive influences over the activity and performance of the company.

3. CLASSIFICATION OF THE ORGANIZATIONAL CULTURE

Most of the attempts to define culture relate to what is characteristic for certain culture, such as power, people, tasks, etc., depending on these aspects, there are more scientific classifications.

The authors Williams, Dobson and Walters have defined four main categories of organizational culture:

- The organizational culture oriented to power (Guideline to power). Such organizations seek to dominate their environment and those who exercise power striving to maintain an absolute control over their subordinates.
- The organizational culture oriented to role (Guideline to Role). Such organizations focus on legality, legitimacy and accountability. The hierarchy and status are also important.
- The organizational culture task-oriented (Guideline to Target). Such organizations are focusing on fulfilling the tasks. The authority is based on knowledge and on appropriate skills.
- The organizational culture oriented to people (Guideline to people). Such organizations exist primarily to serve the needs of its members. The individuals are expected to influence each other trough personal example and solicitude.

4. MODELS OF ANALYSIS AND INTERPRETATION OF THE ORGANIZATIONAL CULTURES

The components of organizational culture can be observed and interpreted trough specific analysis techniques developed by experts in this field. We will present three models for the analysis of organizational cultures, developed by Hofstede, Quinn and Sonnenfeld. The identification of cultural organizations specifications assumes exploitation of collective representations which expresses the social links and determines the identity of the group.

The organizational culture thus appears like a system of representation and shared values by the members of the organizations, it is considered an integrating factor, promoting connection groups. At the same time, intervenes as an instrument of social control, generating various form of resistance from those who do not join to the values shared in their organizations.

The model proposed by Hofstede

G. Hofstede has been a model of analysis of the organizational cultures based on the information gathered as a part of an impressive research, conducted among the 116000 employees of multinational companies. The criteria on which is based the model of organizations' classifications is:

- The degree of power centralization;
- The degree of standardization, specialization and the formalization of roles

These two key elements correspond to some cultural dimensions, namely: the distance and hierarchical control of the uncertainty. The distance versus hierarchical power supplies the answer to the centralized decisions which are introduced in an organization: the longer the distance, the greater the hierarchical power becomes, and the centralised power is more obvious. Avoiding uncertainty and control indicates the degree of tolerance towards assuming risks. In an organizational culture that represents a strong avoidance of uncertainty, there are rules, increasing trend and valorisation of social comfort; so behaviours that aim the value system are considered unacceptable. Instead, in a tolerant culture that concerns the control of uncertainty, the behaviour of individual employees is less tolerated and the personal initiatives are encouraged. Based on these two cultural dimensions, Hofstede suggested four types of organizations:

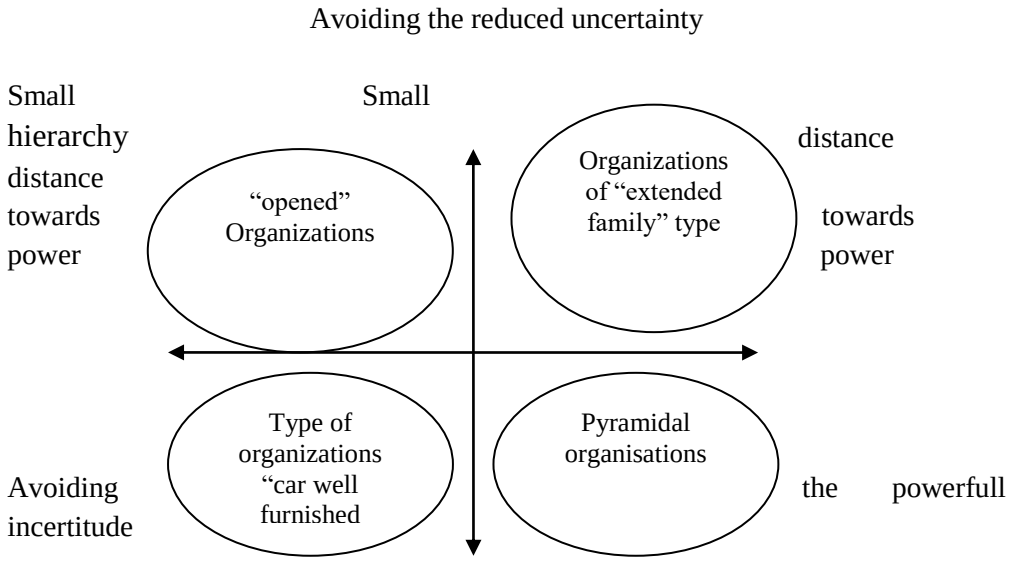

Figure1: Typology organizations form the perspective of cultural **dimensions** (Hofstede's model)

"Open" Organizations are built on values that are characterized by a low degree of uncertainty of avoiding small distance over power, they are not formalized, neither centralized. The manager is responsible for achieving the objectives and tasks for subordinates and they receive tasks for developing effectively by carrying out their activities.

I. The organizations "extended family" types are based on cultural values which are characterized by a weak avoidance of uncertainty and a great distance against hierarchical power, but are not centralized or formalized. The relations between employees are provided strictly, being an appreciable margin of initiative regarding employment procedures. The shared cultural values in such organizations are loyalty and respect for traditions.

II. The organizations pyramid is characterized in terms of cultural specifications by a great hierarchical distance beside of power and a strong avoidance of the uncertainties. The structure of such organizations is centralized and formalized. Both procedures of work and the relationships between individuals are provided in a rigid manner, either trough formal rules or by customs and traditions

III. The "car well furnished" is specific to the cultures characterized by a small distance over power and a strong avoidance of uncertainty. Their structures are

decentralized but formulated; working procedures are strictly laid down, but not the relations between the members of the organization outside their duties. The manager is regarded by subordinates as an expert who respects and applies the taken decisions.

The main critic brought to this model is consisting trough the fact that it does not establish a clear distinction between the concept of hierarchy and power.

The model proposed by Quinn

This model for interpretation of the organizational cultures was developed in order to describe the relationships that affect the criteria of efficiency within organizations. In its view, the cultural values represent the foundations of the managerial system of a company.

The values that characterize the organization	The loyalty of employees	Orientations towards development	Formalism	Guidance towards results
Who leads	A "family" member	An entrepreneur	A manager	An expert
Values which are at the base of its members cohesion	The membership at the system of values	Innovation, creativity	Respecting the rules	Exemplary fulfillment of tasks
Values that motivate the employees	Social cohesion, moral	The expansion of business	Establishment of job seats	Competitiveness

Figure 2: Discrimination values in the model interpretations of the organizational cultures proposed by Quinn

The Quinn's model focuses over the tensions and the inherent conflicts in the life of an organization. The dimensions on which are based the model are:

- The control axis – flexibility, which highlights the contradictory expectations between control, stability, order, and flexibility, initiative and adaptability to change.
- The oriented axis to the intern environment - oriented to extern environment, which illustrates the contradictory expectations, while maintaining the management system and company's organization and its orientation towards competition, adaptation and interaction with the company's external environment.

The interactions between these two dimensions lead to the identifications of four types of organizational cultures: the culture-type group, innovating culture, rational culture and hierarchical culture.

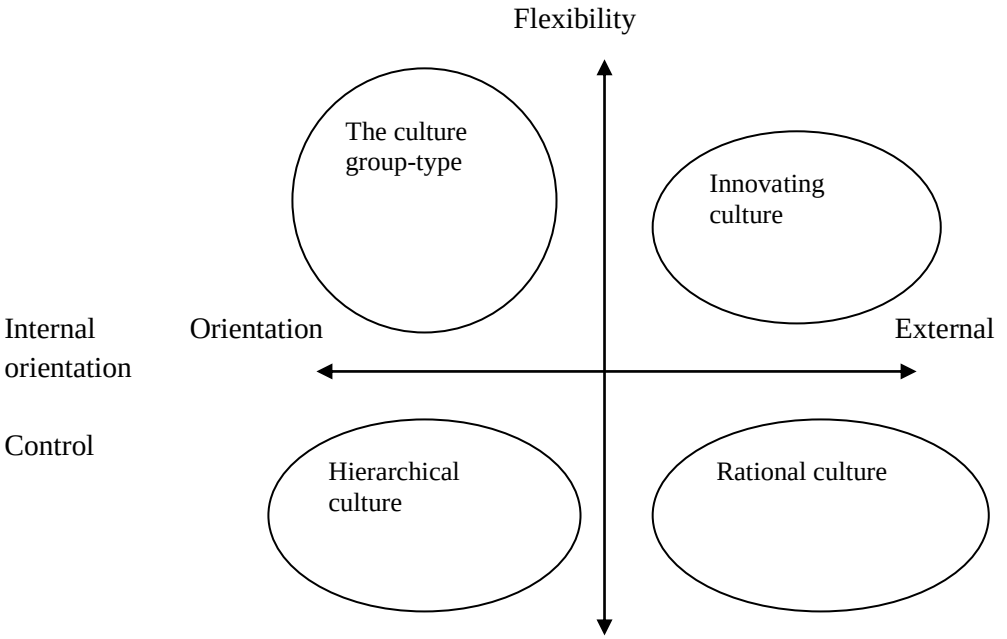

Figure 3: The typology of organizational cultures in Quinn's vision

I. The culture-type group

- strategic vision: the orientation of the development potential of human resources;
- basic values: participation, confidence, sense of belonging to a "family";
- the main factors of motivation: social cohesion, moral, tradition;
- style of management: participatory management style, encouraging interaction between members of the organization and promoting teamwork;
- efficient criteria: loyalty of employees, human resource, development skills;

II. Cultural innovation

- strategic vision: orientation towards innovation, expansion, attracting new resources;
- basic values: dynamism and adaptability, creativity, enterprising spirit;
- the main motivation factors: to assume risks, creativity, appreciating the spirit of initiative;

- style of management: the manager is an entrepreneur who is willing to take risks in order to develop business;
- efficiency criteria: the expansion of activities on new market segments, diversification object of activity, etc.;

III. Rational culture

- strategic vision: the movement towards obtaining competitive advantage and market superiority;
- basic values: competitiveness, involving all employees for obtaining performance;
- the main motivation factors: competition, fulfilling the imposed performance standards;
- style of management: the manager is an expert in all fields, appreciated for his qualities by all the subordinates;
- efficiency criteria: effectiveness of investment, rate of profitability;

IV. Hierarchical culture

- strategic vision: orientation to stability, continuity, applications of rules and procedures
- basic values: order, discipline, continuous assessment of activities;
- the main motivation factors: job security, continuity of activities;
- leadership style: the manager is a administrator of all the activities, aiming to minimize any risk;
- efficiency criteria: ensuring stability by obtaining of a minimum and constant profit.

The model proposed by Sonnenfeld

This model for the interpretation of organizational cultures is built on the basis of two dimensions:

- stability/instability of extern environment with which the organizations come into contact and define the director lines of the strategies;
- contribution expected from employees, which can be individual or collective.

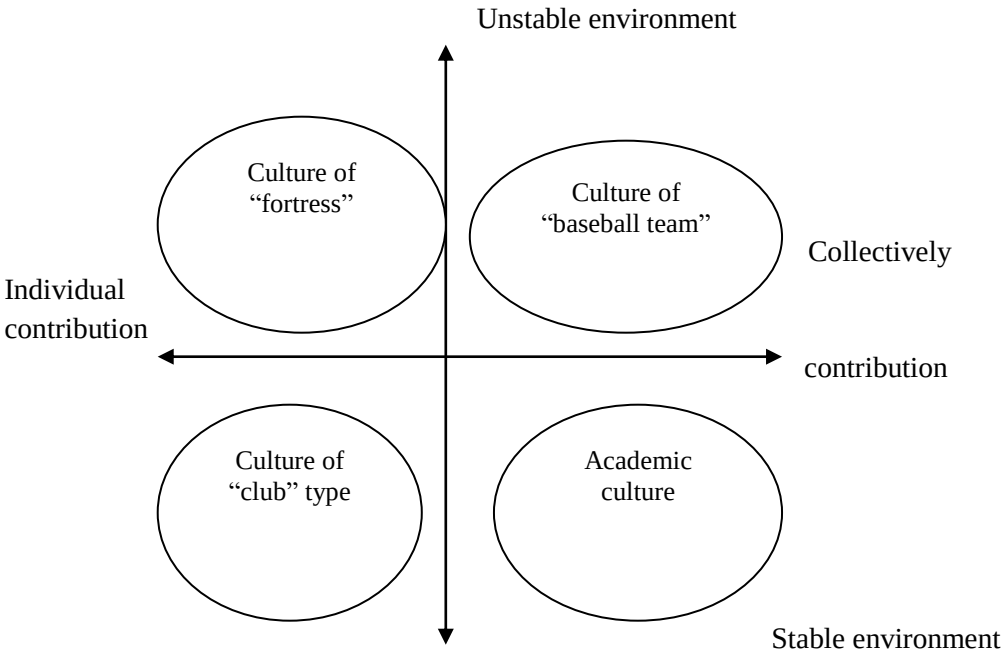

Figure 4: Typology of organizational cultures according to the model Sonnenfeld

I. *The organizational culture of "fortress"* type is represented in a business environment characterized by a high degree of uncertainty in which the survival of companies is precipitated. The requirements for restructure does not offer any guarantee of employment security and career development. The adoption of such cultures allows highlighting the confident peoples in continuity and development business, but assumes the risks and leads a team, ready to "fight" for ensuring the success.
II. *The organizational culture of "baseball team"* corresponds to organizations that acts in an unstable business environment, but which is fructifying the creativity, initiatives and individual performances of their members, concerning the rapid adjustments to the changes of the environment.
III. *The organizational "academic" culture* is characterized by stability, valorising the loyalty towards the company. Under this type of organizational culture, it is the greatest appreciation enjoyed by specialized skills and level of expertise of each employee.
IV. *The culture of "club" type* is specific to the organizations that carries out their activities in a stable environment and in which the team spirit prevails. The

system values focuses on the loyalty of employees and combined experiences in the organizations.

Conclusions

The manager has a crucial role in reviving the organizational culture of a company.

To do this, it can follow these steps:

- Establishing values, symbols, credible standards so that the employees see them applied;
- Building self-confidence trough positive feedback and offering numerous rewards of appreciations for the employees' effort and performances;
- The transmission of direct and sincere messages, regarding its interest for the employees;
- Demonstration of care and attachment for the organization and its components;

Leaders by their acquired indigenous qualities can create real obstacles between members of the organization. The individual objectives and overall business contribute to the harmonization of interests of various categories of stakeholders and satisfy in a high degree their needs and their interests.

REFERENCES:

1. Androniceanu, A., *Noţiuni în managementul public*, Bucureşti, Editura Universitară, 2005;
2. Bordean, I., *Managementul resurselor umane*, Galaţi, Editura Fundaţiei Academice Danubius, 2000;
3. Deaconu, A., Podgoreanu, S., *Factorul uman şi performanţele organizaţiei,* Bucureşti, Editura ASE, 2004;
4. Deal, T. E., Kennedz, A. A., *Corporate Culture: The Rites and Ritual of Corporate Life*, Reading, Addison-Welesz, 1982;
5. Hofstede, G., Bollinger, D., *Les différences culturelles dans le management*, Les editions d'organisation, 1986;
6. Hofstede, G., *Cultures and Organization: Software of the Mind*, New York, Mc. Graw Hill Publishing, 1994;
7. Hutu, C. A., *Cultura organizaţională şi transfer de tehnologie: premise pentru transformarea competitivă a organizaţiilor româneşti,* Bucureşti Editura Economică, 1999;

8. Larcon, J. P., Rutter, R., *Structures de pouvoir et identité de l'entreprise*, Paris, Nothan, 1979;
9. Moldovanu, G., *Analiză şi comportament organizaţional*, Bucureşti, Editura Economică, 2005;
10. Năstase, M., *Cultura organizaţională şi managerială,* Bucureşti, Editura ASE, 2004;
11. Năstase, M.; Nicolescu, O., (coord. st.), *Interdependenţe dintre cultura organizaţională şi managementul firmei*, Bucureşti, Editura ASE, 2006;
12. Nicolescu, O., (coord.), *Sistemul organizatoric al firmei*, Bucureşti, Editura Economică, 2003;
13. Olaru, A., *Cultura Organizaţională*, Galaţi, Editura Fundaţiei Academice Danubius, 2003;
14. Quinn, R., *Diagnosing and Changing Organizational Culture: Based on the Compating Values Framework,* Addison Wesley, US, 1993;
15. Wiliams, A., Dobson, P., Walters, M., *Changing Culture: New organizational approaches,* London, IPA, 1989.

HOW TO IMPROVE ARTIFICIAL INTELLIGENCE THROUGH WEB

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Abstract: *Intelligent agents, intelligent software applications and artificial intelligent applications from artificial intelligence service providers may make their way onto the Web in greater number as adaptive software, dynamic programming languages and Learning Algorithms are introduced into Web Services. The evolution of Web architecture may allow intelligent applications to run directly on the Web by introducing XML, RDF and logic layer. The Intelligent Wireless Web's significant potential for rapidly completing information transactions may take an important contribution to global worker productivity.*

Artificial intelligence can be defined as the study of the ways in which computers can be made to perform cognitive tasks. Examples of such tasks include understanding natural language statements, recognizing visual patterns or scenes, diagnosing diseases or illnesses, solving mathematical problems, performing financial analyses, learning new procedures for solving problems. The term expert system can be considered to be a particular type of knowledge-based system. An expert system is a system in which the knowledge is deliberately represented "as it is". Expert systems are applications that make decisions in real-life situations that would otherwise be performed by a human expert. They are programs designed to mimic human performance at specialized, constrained problem-solving tasks. They are constructed as a collection of IF-THEN production rules combined with a reasoning engine that applies those rules, either in a forward or backward direction, to specific problems.

Keywords*: Artificial intelligence,* computer software system, *Web*

Jel Classification*: L - Industrial Organization, L8 - Industry Studies: Services, L86 - Information and Internet Services; Computer Software*

An intelligent agent is a computer software system that is situated in some environment and capable of autonomous action and learning in its environment to meet its design objectives. Intelligent agents have the following characteristics: reactive – they perceive their environment and respond; proactive – they exhibit goal – directed behaviour; and social – they interact with other agents.

Real-time intelligent agent technology offers a powerful Web tool. Agents are able to act without the intervention of humans or other systems; they have control both over their own internal state and over their behaviour. In complexity domains, agents must be prepared for the possibility of failure. This situation is called nondeterministic. Normally, an agent will have a repertoire of actions available to it. This set of possible actions represents the agent's capability to modify its environments.

The key problem facing an agent is that of deciding which of its actions it should perform to satisfy its design objectives. Agent architectures are really software architectures for decision-making systems that are embedded in an environment. The complexity of the decision-making process can be affected by various environmental properties.

Distributed artificial intelligence is concerned with coordinated intelligent behaviour: intelligent agents coordinating their knowledge, skills, and plans to act or solve problems, working towards a single goal or towards separate, individual goals that interact. Distributed artificial intelligence provides intellectual insights about organization, interaction, and problem solving among intelligent agents.

In building the Intelligent Wireless Web, can envision the use of parallel PC clusters coordinated by artificial intelligence service providers to carry out complex tasks utilizing the principles of distributed artificial intelligence. Adaptive configurations of such clusters will enable the task assignments to be distributed by artificial intelligence servers to PCs within the cluster having the need of capabilities that may be highly specialized.

The basic assumption of distributed artificial intelligence is that, in general, a single isolated intelligent agent does not possess enough knowledge or resources to complete a problem-solving task. On the contrary, it is envisioned that complex problem solving in real-world domains will be performed by communities of specialized intelligent agents, able to collaborate with each other toward the accomplishment of a given common goal and to negotiate the use of resources in the most effective way. The ability to communicate with other agents is therefore considered essential for an agent to exhibit intelligent behaviours.

An artificial intelligence provider is used as the development environment for distributed artificial intelligence systems, using an extension to HTTP designed to support server-to-server communication. In particular, new methods enable a client agent to invoke a specific service on a server. The implementation of a specialized HTTP server would be able to deliver distributed artificial intelligence applications over the Web. In addition to implementing standard HTTP, the artificial intelligence server would offer a library of high-level functions to dynamically generate HTML pages and a server-to-server communication method.

The dynamic generation of HTML pages allows complex artificial intelligence applications to be delivered to end users without the need for specialized hardware and software support and using a simple and homogeneous interface model.

Intelligence usually refers to the ability to reason, solve problems, remember information, or learn new idea. The Web can be considered to be a massive information system with interconnected databases and remote applications providing various services. Although these services are becoming more and more user oriented, the concept of smart applications on the Web is still in its infancy.

One of the most sophisticated on the Web today is the Enterprise Information Portal, operating with the state-of-the-art mark-up languages to search, retrieve and repackage data. The Enterprise Information Portal is in the process developing into an even more powerful centre based on component-based applications called Web Services. Enterprise Information Portals provide ready access to information over intranets and the Internet.

Corporate portals have moved beyond the delivery of information; they also provide a way to integrate the many disparate systems and processes that are typically used within an enterprise. Corporate portals are able to use XML to integrate previously separate legacy systems and provide a single point of entry, or gateway, to these processes. Enterprise Information Portals now act as access centers that tie together people and data by linking e-mail, groupware, workflow, collaboration, and other mission-critical applications to portals.

The tools needed to continue evolving advanced Web capabilities are based mostly on XML standards, frameworks and Schema. The Wireless Application Protocol is an XML application that allows access to information via personal digital assistants (PDAs) and other handheld devices. The variety and power of these XML tools demonstrates the potential for Web development.

XML changes the Web by introducing the concept of metadata (that is, data about data). In XML, each piece of data includes not only the data itself but also a

description of the data. XML therefore describes data, not pages. It is about actual information content, but says nothing about the layout. The power of XML then is that it makes applications aware of what they are about. Once a spreadsheet is expressed in XML, it can link across the Web into other spreadsheets and into server-based applications. The ultimate result of adding XML to the Web will be a change of Web infrastructure.

The latest versions of Web browsers can read an XML document, fetch the appropriate style sheet, and use it to sort and format the information on the screen. The reader might never know that he is looking at XML rather than HTML, except that XML-based sites run faster and are easier to use. XML based semantic messaging revolutionizing distributed system development. Their main advantages include: more flexible data transfer, simplified interface management and simplified remote invocation.

Today, artificial intelligence applications using the Prolog computer language are already being used for Web applications. Prolog is a logic language that is well suited to problems that involve symbolic or nonnumeric computation. The name itself is short for PROgramming LOGic. New applications are being vigorously pursued in many fields, and it shouldn't be long before Web Services include a variety of artificial intelligence applications.

One approach to artificial intelligence is to implement methods using ideas of computer science and logic algebras. The algebra would establish the rules between functional relationships and sets of data structures. A fundamental set of instructions would allow operations, including sequencing, branching and recursion, within an accepted hierarchy. Logic structures have always appealed to artificial intelligence researchers as a natural entry point to demonstrate machine intelligence.

Today, the Web consist primarily of a huge number of data nodes; the data nodes are connected through hyperlinks to form "hyper-networks" that collectivity can represent complex ideas and concepts above the level of the individual data. The Web merely stores and retrieves information, even considering some of the "intelligent application" in use today (including intelligent agents, EIPs, and Web services). So far, the Web does not have some of the vital ingredients it needs, such as a global database schema, a global error-correcting feedback mechanism, a logic layer protocol, a method of adopting Learning Algorithms systematically throughout its architecture, or universally accepted knowledge bases with interface engines. So, the Web continues to grow and evolve, but it does not adapt – and adaptation is an essential element of learning. If the jury is still out on defining the Web as

intelligent, can still consider ways to change the Web to give it the ability to adapt and therefore to learn.

The Web may be nexus of much of information flow, but it is not overly smart. In the future the Web will need to do much more than pass raw data between people via search engines.

The Semantic Web is a vision of having data on the Web defined and linked in a way that can be used by devices, not just for display purposes but for automation, integration and reuse of data. The wireless communication process should start by talking to a personal or embedded device that recognizes the user's words and commands. It will connect seamlessly to the correct transmission device, drawing on whatever resources are required from around the Web. Perhaps only database search, sorting and retrieval are required. Or perhaps a specialized application program will be needed. In any case, the information will be evaluated and the content of the message with the appropriate supporting data to fill in the "blanks" will be provided.

The Web require fundamental upgrades in the physical and intellectual components to perform intelligent tasks, including: wireless networking infrastructure, personal and embedded devices, processing chips, semantic Web architecture, mobile Internet protocol, parallel processing artificial intelligence application over clustered networks, perhaps as Web Services, adaptive software languages and learning algorithms, speech recognition, understanding, synthesis and translation. These physical and software components are necessary to implement the Intelligent Wireless Web. They require changing software applications from dumb and static to intelligent and dynamic.

The Web's content is presently expanding at an enormous pace, but the quality of its structure is not improving. The only mechanism for network restructuring at present is the contributions of individual Web-designer subnetworks. This result in a Web that is weakly organized. Any system capable of dynamically adapting network structure and content must use information that is locally available to HTTP servers.

But the Web has limited control above individual HTTP servers. Many of the existing systems for flexible hypertext depend on extensive information being stored and managed. As a result, the control for the automatic adaptation of structure for the Web is limited to local networks.

The IT community seems to be leaning toward defining the Web in terms of a database with knowledge representation. Artificial intelligence based solutions for capturing and indexing vast amounts of Web information, that are already available.

Artificial intelligence related technologies are at the heart of all Internet search engine services.

For the Web to learn, it requires the capabilities of knowledge discovery, learning algorithms and self-organization. Then the Web will autonomously change its structure and organize the knowledge it contains by learning the ideas and preferences of its users.

Supplementary to adding artificial intelligence algorithms and agents to web services, the W3C suggests the use of better semantic information as part of Web documents and the use of next-generation Web languages such as XML and RDF.

The Semantic Web carries the vision of having data on the Web defined and linked in a way that it can be used by devices not just for display purposes but for automation, integration and reuse of data across various applications. To make this vision a reality for the Web, supporting standards and technologies must enable devices to make more sense of information on the Web. For the Web to scale, programs must be able to share and process data, even when these programs have been designed totally independently.

Web-enabled languages and technologies are being developed (RDF-schema), schema and ontology integration techniques are being examined, and Web services integration standards are being defined. The success of Semantic Web will depend on a widespread adoption of these technologies.

A framework for representing metadata is Resource Description Framework (RDF). The goal of RDF is to enable the automation of many Web-related activities, such as resource discovery. RDF is a model for metadata, and XML can be used to represent this model. Another goal of RDF is to define a mechanism for describing resources that makes no assumptions about a particular application domain, nor defines the semantics of any application. Such models are used to represent knowledge representation, to address reuse and components and to handle problems of schema evolution.

The road map for achieving a set of connected application for data on the Web in the form of a logical Web of data is called the Semantic Web. An underlying idea of semantic networks is the ability to resolve the semantics of a particular node by following an arc until a node is found with which the agent is familiar. The Semantic Web, in competition with artificial intelligence Web Services, forms a basic element of the Intelligent Wireless Web.

The Web was originally designed as an information space, with the goal that it should be useful not only for human-human communication, but also for interactions between devices. One of the major obstacles to this has been the fact that most

information on the Web is designed for human consumption, and even if it was derived from a database with meanings for its database elements, the structure of the data is not evident to an autonomous agent browsing the Web. Leaving aside the artificial intelligence problem of training devices to behave like people, the Semantic Web approach instead develops languages for expressing information in a form that a device can process.

The model general is the RDF. The basic model contains only the concepts of an assertion and quotation, making assertions about assertions. RDF applications are for metadata in which assertions about assertions are basic, even before logic.

The RDF model does not say anything about form of the reasoning engine. The proof will be a chain of assertions and reasoning rules, with pointers to all the supporting material. RDF at the logical level already has the power to express inference rules.

RDF at the logical level is a query engine of specific algorithms and indexes. Although search engines that index HTML pages find many answers to search and cover huge part of the Web, they return many inappropriate answers. There is no notion of "correctness" to such searches. By contrast, logical engines have typically been able to restrict their output to provably correct answers, but have suffered from the inability to go through the mass of connected data to construct valid answers.

If an engine of the future combines a reasoning engine with a search engine, it may actually be able to construct proofs. It will be able to reach out to indexes that contain very complete lists of all occurrences of a given term, and then use logic to weed out all but those which can be of use in solving the given problem.

The Web may benefit from self-organizing software, adaptive protocols, and object-oriented dynamic languages to give the Web a significantly hunger of mobility and dynamism, as well as integration of devices and sensors embedded in the real world. Self-organizing network software refers to the ability of a network to organize and configure itself.

Adaptation means the ability of protocols and applications to learn and adapt to the changing conditions in the network, such as levels of congestion and errors. The next-generation programming language may also support intelligent, adaptive, complex software systems. Adaptive software may use information from the environment to improve its behaviour over time. Object-oriented dynamic language forms a higher level of abstraction, semantics, development, and reflection.

Adaptive software may offer to change this adding a feedback loop that provides information based on performance. The design criteria itself becomes a part of the program, and the program reconfigures itself as the environment changes.

At the question "how will the Web learn?", it suggest a composition of the Semantic Web with its logic layer utilizing components of artificial intelligence agents, learning algorithms and artificial intelligence applications, including adaptive software available through Web Services.

Two basic options exist for locating Web intelligence. Web intelligence could be globally distributed throughout the Web as a layer of the infrastructure over Web protocols. Although the semantic Web architecture is not actually an artificial intelligence application in itself, it is a foundation for possible artificial intelligence applications that could be added to its logic layer.

An alternative approach is locating Web intelligence locally, centralized on an artificial intelligence portal (providing Web services) that is joined to its own cluster of Web computers. Each approach has a serious flaw. The artificial intelligence portal approach limits uniformity and access, while the global semantic Web approach faces combinatory complexity limitations.

Distributed computing is a model of data processing consisting of many small computers on a network working to do the same amount of processing as one supercomputer. The Internet, the world's largest network, provides vastly more computer power than ASCI White's 8.192 processors. By finding ways to allow many different computers to process smaller chunks of data, scientists hope to turn the Internet into the world's largest supercomputers.

Locating Web intelligence on central artificial intelligence servers, each of which is joined to its own cluster of Web computers, provides a powerful component for local centralized Web intelligence.

An Intelligent Wireless Web is a network that provides any time, anywhere access to information resources with efficient user interfaces and applications that learn and thereby provide increasingly useful services whenever and wherever we need them.

It is certainly possible to develop intelligent application for the Internet without media (that is, audio/video) Web features and/or wireless capability. It is all suggestion, however, that Web media, such as audio, can lead to improved user interfaces using speech and the small wireless devices, widely distributed, can lead to easier access to large portions of the world's population. The end result could be not just an intelligent Internet, but a widely available, easily accessible, user-friendly, Intelligent Wireless Web.

As a result, the concept of an Intelligent Wireless Web weaves together important concepts related to the growing and evolving system of information technology software and hardware known as the Internet. Intelligence (in particular,

the ability to learn) and "wireless" promise the delivery of increasingly capable information services to mobile users any time and anywhere.

Intelligent Wireless Web wove several important concepts related to intelligence (the ability to learn) wirelesses (mobility and convenience), and its advances in telecommunications and information technology that together promised to deliver increasingly capable information services to mobile users any time and anywhere.

It was certainly possible to develop intelligent applications for the Internet without media (audio/video) Web features or wireless capability. But, Web media such as audio could lead to improved user interfaces using speech and that small wireless devices widely distributed could lead to easier access for large portions of the world's population. The end result could be not just an intelligent Internet but a widely available, easily accessible, user friendly, Intelligent Wireless Web.

An Intelligent Wireless Web represent a network that provides any time, anywhere access through efficient user interfaces to applications that learn. Notwithstanding the difficulty of defining intelligence, it recognized that terms such as artificial intelligence, intelligent agents, smart machines, and the like refer to the performance of functions that mimic those associated with human intelligence.

All of information services are the next logical step, along with the introduction of variety of different portable user devices (Web-enabled cell phones, small portable computers) that have wireless connectivity. The result will be wireless technology as an extension of the present evolutionary trend in information technology. In addition, artificial intelligence and intelligence software application will make their way onto the Wireless Web. A performance index or measure may eventually be developed to evaluate the progress of Web intelligence.

The future wireless communication process should start with a user interface based on speech recognition by which we merely talk to a personal mobile device that recognizes our identity, words and commands. The personal mobile device would connect seamlessly to embedded and fixed devices in the immediate environment. The message would be relayed to a server residing on a network with the necessary processing power and software to analyze the contents of the message. The server could then draw necessary supplemental knowledge and services from around the world through the Internet.

To build this ideal future wireless communication process we must connect the following technologies, along with their essential components: connecting people to devices – the user interface, connecting devices to devices and connecting devices to people.

The physical components and software necessary to construct and implement the Intelligent Wireless Web require compatibility, integration, and synergy of five merging technology area: user interface – to transition from the mouse click to speech as the primary method of communication between people and devices); personal space – to transition from connection of devices by tangled wires to multifunction wireless devices; networks – to transition from a mostly wired infrastructure to an integrated wired/wireless system of interconnections; protocols – transition from the original IP to the new mobile IP; Web architecture – to transition from dumb and static application to new applications that are intelligent, dynamic and constantly learning.

In present, the network upgrades and integration seems endless. Even when new, advantageous technology becomes available, the existing legacy equipment retains value. Therefore, network integration is progressive and steady, but slow.

The vast system of interconnecting wired and wireless networks that make up the Internet is composed of several different types of transmission media, dominated by wired media but including: wired (fiber optic, coaxial cable, twisted pairs) and wireless (microwave, infrared and laser).

Wireless LAN technology is rapidly becoming a vital component of data networks. IEEE Standard 802.11 - compliant LANs produce applications based upon open systems. To optimize the operation of wireless systems, software options for interfacing wireless handheld appliances emulate various systems and directly connect to databases.

To achieve the mobility requirements of the Intelligent Wireless Web, the Wireless Appliance Protocol (WAP) provides a global standard for data-oriented services to mobile devices, thereby enabling any time, anywhere access. The anticipated result is to provide intelligent networking software for routing and tracking that leads to general changes in IP networking protocols toward mobile IP. Sitting on top of the entire layer infrastructure will be a new control-plane for applications that smooth routing.

Normally, the wireless communication process should start with the user talking to a personal, or embedded, device that recognizes the person’s identity, words and commands. It will connect seamlessly to the correct transmission device, drawing on whatever resources are required from around the Web. In one case, only database search, sorting and retrieval might be required. Or in another case, a specialized Web service application program might be required. In any case, the information will be evaluated, and the content of the message will be argued with appropriate supporting data to fill in the “blanks”.

Ideally, the wireless communication process should start with the user talking to a personal, or embedded, device that recognizes the person's identity, words, and commands. It will connect seamlessly to the correct transmission device, drawing on whatever resources are required from around the Web. In one case, only database search, sorting, and retrieval might be required. Or in another case, a specialized Web service application program might be required. In any case, the information will be evaluated, and the content of the message will be augmented with the appropriate supporting data to fill in the blanks.

For the Web to learn how to conduct this type of intelligent processing, a mechanism is required for adapting and self-organizing on a hypertext network. In addition, it needs to develop learning algorithms that would allow it to autonomously change its structure and organize the knowledge it contains, by "learning" the ideas and preferences of its users.

The speed at which new technologies become available and the rate of technology change have increased. Therefore, to develop guidelines for strategic planning, we must consider two discordant requirements: first, to optimize the network's long-term investment while, second, optimizing the time to market for each new product. Finding the right balance is not easy. However, opportunities for wireless developers and service providers will exist when they can reach all mobile users by developing infrastructure to support any wireless carrier, any wireless network (TDMA, CMDA), any wireless device (digital cell phone, PDA), any wireless application, any Web format, any wireless technology (WAP, SMS), any medium (text, audio, TTS, speech recognition, or video).

Strategic planning for changes in the user interface (while small wireless devices proliferate) could focus on balancing innovations in software against innovations in hardware. For example, speech recognition and speech synthesis offer attractive solutions to overcome the input and output limitations of small mobile devices, if they can overcome their own limitations in memory and processing power. Therefore user interface opportunities could exist if the right balance for the client-server relationship between the small device and nearby embedded resources is achieved.

However, strategically, this will require integrating chip design engineering with specific software application engineering. It is no longer enough to build the fastest, most powerful chips possible, and then let software engineers design their applications to fit the available capability. Integrated application performance teams are essential to planning applications as speech synthesis and artificial intelligence requirements and then setting specifications for the combination of the small

device/embedded resource to properly achieve a balanced and efficient client-server, as well as peer-to-peer relationships.

Wireless communication may be driven by decentralized network architecture integrating services that today span several network technologies. The most fundamental change to network intelligence could come from intelligence produced by decentralized Web architecture, such as by upgrading the IP. Or intelligence could come from a centralized process, such as Web Services, which provides a particular function or component from a central server to multiple users around the world. However, there will be a growing recognition that centralized components, globally distributed, and modifications to the underlying Web architecture, locally accessed, are two faces of one coin. Certainly, integrated and simultaneous development appears necessary.

Regardless of how artificial intelligence applications are processed on the Web, a vital challenge will be the establishment of trusted information. The process must build trust of information and will include a form of information registration and validation.

Whether learning is achievable from artificial intelligence service providers through Web Services, or through changes in Web architecture, such as the semantic Web, or if the machine learning is achievable at all, remains extremely controversial. But it is often in response to challenges mired in controversy from competing paradigms that some latent capabilities may be uncovered. The virtue of controversies is that they motivate experts into uncovering dormant capabilities in response to the challenge.

In this context, it can say that artificial intelligence is already being introduced to the Web, but the jury is still out on whether the Web is, or will ever become, intelligent. As the Web increases the percentage of applications and protocols with learning algorithms, we can expect improvements in performance in both type and quality.

The Web may become a learning network through a combination of Semantic Web architecture and components of artificial intelligence agents and artificial intelligence applications built with adaptive software languages and connected to the Web via its logic layer. Web intelligent could be located globally – distributed throughout the Web as a layer over the infrastructure of Web protocols, as well as locally on artificial intelligence service providers, each of which is joined to its own cluster of specialized artificial intelligence application computers.

REFERENCES:

1. Bogdanowicz, K., D., *Scenarios for Ambient Intelligence in 2010*, ISTAG Report, European Commission, February, 2001;
2. http://aima.cs.berkeley.edu/ai.html;
3. http://www.sciam.com;
4. http://www.web-iq.com;
5. http://www.wirelessweek.com/index.asp?layout=weblinks&page=directories_links&link=0-Z&industry=Publishing;
6. McInerney, F., *Future Wealth*, Truman Talley Books, 2002;
7. Scott, Lewis, *Wireless PC-Based Services*, Prentice Hall PTR, 1st Edition, March, 2001;
8. Tamura, T., Oguchi, M., *Parallel database processing on a 100 node PC cluster: Cases for Decision Support Query Processing and Data Mining*, SC 97 Technical Paper, Institute of Industrial Science, 2001.

LE RISQUE POLITIQUE

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Abstract: *Les analyses de risque politique visent à évaluer et à prévoir la capacité des pays à faire face à leurs échéances financières. Ces analyses sont très utiles aux exportateurs pour connaître les délais de paiement, les possibilités d'échange des devises et pour prendre des mesures de couverture des importations. Les entreprises doivent connaître le risque politique des pays pour décider d'investir ou non. Le risque politique est établi des organismes externes à la base d'analyses multicritères.*

Mots clés: *risque politique, macro risque, micro risque, risque d'insolvabilité d'un pays endetté.*

Jel Classification: *G - Financial Economics, G3 - Corporate Finance and Governance, G32 - Financing Policy, Financial Risk and Risk Management, Capital and Ownership Structure*

Introduction

Le risque politique représente le risque que des changements politiques apparaissent dans un pays, lesquels peuvent entraîner d'importantes conséquences défavorables pour les entreprises étrangers remplacés dans ce pays, ainsi que le bon déroulement des opérations commerciales financières effectuées avec ce pays. Le risque politique est difficile à prévoir et à évaluer. Pour les entreprises exportatrices, le risque politique représente le risque de non recouvrement des créances commerciales détenues sur un importateur étranger, du fait de mesures adoptées par le gouvernement, soit le risque de fermeture du marché pour raisons politiques.

Les formes du risque politique

Les entreprises multinationales peuvent se confronter avec deux catégories de risque politique:

1. **le risque politique** ou **risque-pays,** qui menace la pérennité des investissements directs et indirects dans un pays, effectués par des sociétés multinationales à l'étranger;

2. **le risque administratif,** qui découle de mesures gouvernementales pour limiter la liberté des entreprises multinationales.

1. Le risque politique peut varier selon les pays et la nature des activités des filiales étrangères, ou les opérations engagées, ainsi, on peut distinguer:

a. Le macro risque ou le risque-pays;
b. Le micro-risque ou le risque politique d'un secteur d'activité;
c. Le risque politique des projets;
d. Le risque d'insolvabilité d'un pays endetté.

a) Le macro risque ou le risque-pays représente une hostilité envers les investissements étrangers dans une période de crise, à cause de l'instabilité politique, économique et sociale d'un pays. Les formes de manifestation de macro risque ou le risque-pays sont : nationalisations ou expropriations avec indemnité ou non, et la restructuration de la dette ou l'annulation de contrats.

b) Le micro risque ou le risque politique d'un secteur d'activité se rencontre dans le secteur pétrolier, minier, bancaire ou dans le secteur des assurances.

c) Le risque politique des projets représente le risque qui menace la pérennité des investissements directs et indirects dans un pays, effectué par des sociétés multinationales à l'étranger. Si ces projets représentent pour ce pays des recettes budgétaires importantes, la crainte d'une dépendance vis-à-vis de l'entreprise étrangère peut conduire à adopter des mesures administratives plus coercitives, voire de non-paiement.

d) Le risque d'insolvabilité d'un pays surendetté concerne l'incapacité d'un pays à assurer le service de ses dettes, c'est-à-dire le remboursement du principal ainsi que le paiement des intérêts.

2. Le risque administratif se référant aux mesures restrictives adoptées par un gouvernement à l'égard des entreprises étrangères à cause des difficultés économiques intérieures, soit lorsque la balance des paiements est déséquilibrée, soit pour avoir un certain contrôle sur les investissements étrangers.

Ces mesures restrictives sont très diverses pour équilibrer la balance des paiements, ainsi: restrictions des sorties de capitaux (limitations de rapatriement des dividendes, des bénéfices, etc.), des restrictions des importations, surtaxes des importations), contrôle des prix, et autres.

Toutes ces mesures restrictives peuvent être adoptées pour une durée limitée, afin de résoudre un déficit conjoncturel de la balance des paiements, mais elles peuvent être également durables.

Pour avoir un certain contrôle sur les investissements étrangers, les mesures restrictives peuvent être: contrôle des investissements, obligations de réinvestir sur place une partie des bénéfices, contrôle des projets et obligations d'intégrer des produits locaux pour favoriser l'industrie locale.

L'évaluation du risque politique

L'évaluation du risque politique peut être réalisée soit au sein de l'entreprise, soit par des consultants extérieurs, soit par des organismes spécialisés. Pour les investissements importants, les entreprises font appel à des organismes spécialisés. Les méthodes de prévision du risque politique sont: soit par indices de risque, soit par scénarios, soit l'approche sociologique.

La méthode par indices de risque, en appelle à une liste de variables-clés caractéristiques de la situation économique et politique du pays, qui sont pondérées avec un coefficient de pondération, obtenant plusieurs indices de risques avec des variables différents, ainsi: Standard & Poor's Ratings Group, Moody's Investissements Service, Fitch – I. B. C. A., Euromonnaie Business Environnement Risque Index, l'Economiste Intelligence Unit et Politique Risque Service Group.

La table no.1 – **Les classes de risque politique par Standard & Poor`s**

Long terme	**Courte terme**
AAA - A+	A-1+
A+ - A-	A-1
A - BBB	A-2
BBB - BBB-	A-3
BB+ - BB-	B
B+ - C	C
D	D

La source: Tudoriu, T., *Le risque-pays*, Bucarest, Editura Lucretius, 1999.

La table no.2 – **Les classes de risque politique par E. I. U.**

Pointage	**Les classes de risque**
0-20	A
20-40	B
40-60	C
60-80	D
80-100	E

La source: Tudoriu, T., *Le risque-pays*, Editura Lucretius, Bucarest, 1999.

La méthode par scénarios de prévision du risque politique, analyse des caractéristiques économiques, politiques et sociales d'un pays, puis recherche et définit plusieurs scénarios possibles du pays pour un horizon défini et en appelle à la théorie *minimax*, c'est-à-dire à rendre minimale la perte maximale.

La méthode sociologique de prévision du risque politique analyse des facteurs socio–politiques et culturels, qui peut déstabiliser un pays. Cette approche

utilise soit une analyse statistique, soit une analyse par segmentation dynamique des groupements, d'un point de vue politique, sociale et économique. Cette méthode permet de prévoir le risque politique et de choisir entre divers pays pour un projet d'investissements à l'étranger.

Conclusions

Les analyses de risque politique visent à évaluer et à prévoir la capacité des pays à faire face à leurs échéances financières. Ces analyses sont très utiles aux exportateurs pour connaître les délais de paiement, les possibilités d'échange des devises et pour prendre des mesures de couverture des importations. Les entreprises doivent connaître le risque politique des pays pour décider d'investir ou non. Le risque politique est établi par des organismes externes à la base d'analyses multi-critères. Si le risque politique est considéré trop élevé, le projet d'investissements à l'étranger sera rejeté, et invers.

Bibliographie:

1. Dudian, M., *Evaluation du risque-pays*, Bucureşti, Editura All Beck, 2000;
2. Paranque, B, Rivaud–Danset, D, Salais, R., *Evaluation de la performance et maîtrise du risque des entreprises industrielles françaises,* Revue Internationale PME, Volume 10, 1997;
3. Tudoriu, T., *Le risque-pays*, Bucureşti, Editura Lucretius, 1999;
4. *** Political Risk Service – *A Business Guide to Political Risk*, New York, 1999;
5. *** P.R.S. Group, *International Country Risk Guide*, New York, 1999;
6. ***, *Standard & Poor's Ratings Hand book*, New York, 1996, Standard & Poor's Corps., vol.5, no.10, 1996.

TRUCE OR DICTATORSHIP? ON SIGNING THE TRUCE CONVENTION BETWEEN ROMANIA AND THE GREAT POWERS ON THE 12TH OF SEPTEMBER 1944

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Abstract: *The formula for the "unconditional surrender" adopted in Casablanca on the 24th of January 1943 was meant to acquaint the governments of the states at war with the United Nations with the treatment and the terms of their countries would have to take, no matter when or why they might withdraw.*

As far as Romania was concerned, the terms of surrender included, among others, demobilisation and disarmament, handing over war materials, amends etc, all of which were to be imposed on by the three great powers and had been thought mainly to secure safety and to carrying on the warfare against Germany. These objectives were considered to have deep political implications.

Keywords*: surrender, unconditional surrender,* Romanian delegation

Jel Classification: *N - Economic History N9 - Regional and Urban History, N90 - General, International or Comparative*

The Truce Convention concluded by Romania, on the one hand, and the United Nations, on the other hand, was not the document that the Romanian opposition and the authorities had been waiting for during the secret negotiation in Cairo, Ankara or Stockholm. The formula for "unconditional surrender" adopted in Casablanca on the 24th of January 1943 was meant to acquaint the governments of the states at war with the United Nations with the treatment and the terms their countries would have to take, no matter when or why they might withdraw.

As far as Romania was concerned, the terms of surrender included, among others, demobilisation and disarmament, handing over war materials, amends etc, all of which were to be imposed by the three great powers and had been thought of

mainly to secure safety and a carrying on of warfare against Germany. These objectives were considered to have deep political implications[1].

In the first few days right after the blow at the palace on the 23rd of August and after changing sides and turning against Germany, Romania's international political standpoint was that of *an independent state waging war against its former allies and siding with its former enemies,* part of its territory being seized from a military point of view. On entering Bucharest, the Soviet army was to find here an independent government which was both able and willing to conclude the truce and could easily take pride in having drawn upon its own resources to neutralise German troops and to set free a significant part of the national territory[2]. If the Soviets had, by any chance, made different plans[3] for Romania[4], they were to be overthrown by king Mihai who had managed to change the course of history by having the marshal arrested. What the new Romanian authorities intended to do was to sign an agreement with the United Nations as soon as possible in order to prevent the Red army from taking military control of the whole country.

The assignment of the new government was all the more pressing as the Soviet armies, particularly their leading bodies, used to regard the country as if the territory had been occupied through fighting. Initially, the Soviets also wanted the truce to be concluded as soon as possible, for they were aware of the strategic advantage represented by the direct threat on Hungary in what was to be known as *the most important movement of front translation in the history of World War II*. Subsequently, the situation would change: Russian troops having already occupied the whole Romanian territory and the Soviet government becoming aware of the

[1] *August 23rd 1944. Documents*, vol 1, Bucureşti, Editura Ştiinţifică şi Enciclopedică, pp. 66-70.

[2] Official news released by the Soviet army mentioned fighting to set whole regions free, including the capital city, thus taking credit for something which had already been accomplished by the Romanian troops. It is also true that after Anglo-American allies had set Paris free, the Russians tried to impress by the liberation of Bucharest.

[3] The scenario of taking control of Central and South-Eastern European countries was, to a great extent, similar in all *countries that had been set free by the Red army*. They would have to accept the coming to power of communist parties supported by the Soviet
Union. Further reference, Sperlea, Florin, *Aparatul politic în armatele ţărilor Europei Centrale şi de Sud-Est (1944-1947)*, R.I.M no 1/41-1997, p. 47.

[4] Establishing groups of *volunteers*, the constant involvement of the Moscow representatives of the Communist Party in Romania and the existence of the *volunteer* division "Tudor Vladimirescu" were enough to suggest what the true intentions of the Soviets were. The Soviet Union was taken aback by this move; they would now have to take the longer path and rely on the terms of the Truce Convention to make Romania a Communist country.

advantages that military control over Romania, the Soviets would no longer rush towards concluding the truce.

At the basis of the truce were actually the terms offered to Romania in April and reiterated on the 25th of August in the statement made by Molotov, the commissary in charge with foreign affairs on behalf of the Soviet Union. These terms were to be discussed in Moscow, where the Soviets would have a great say during negotiation with the Romanian representatives[1].

Shortly after the 23rd of August, the representatives of the United States, Great Britain and the Soviet Union would make haste in the matter of concluding and signing the truce based on the text that had already been approved of in April 1944[2]. The negotiation asked for further explanatory notes and annotations in the draft Truce Convention[3], that is why the final text was not concluded and made known to the Romanian party until the 10th of September 1944.

The Romanian authorities would go to great lengths to conclude the Truce; to this purpose, they sent to Moscow a group made of Lucreţiu Pătrăşcanu, Ghiţă Pop, Dumitru Dămăceanu, Ion Christu, who were all specialists in economic matters and international law. Unfortunately, the talks carried out in Moscow by representatives of the Romanian government and representatives of the Allies did not touch upon negotiating the suggested terms, despite the fact that the Romanian party did object to several aspects; most of their objections were overlooked by the Soviet Premier V. Molotov who was the chief negotiator of the Allies.

Despite the Soviet refusal to grant any favours, the Anglo-Americans would come to the conclusion that *the Romanians headed back home feeling that they had got off cheap*; what they found to be of greater importance was the way in which *the Soviets would interpret and bring into operation the truce terms*. The application practice to the Truce Convention signed on the 12th of September 1944 would only prove that the concern voiced by the Romanian group was only rightful; up to that

[1] Ibidem. The negotiation in which the British, the Russians and the Americans participated took longer than expected, as the allies had difficulty agreeing upon certain provisions of the Truce Convention

[2] Mihai, Bărbulescu, Dennis, Deletant, Keith, Hitchins, Serban, Papacostea, Pompiliu, Teodor, *Istoria României* (The History of Romania), Bucureşti, Editura Enciclopedică, 1999, p. 469

[3] Dennis Deletant, op. cit., p. 40. The British had in mind establishing and Allied Commission for Control, much like the one that had already been established in Italy, whereas the Soviets' proposals were either frail (fight against Germany) or, in a somewhat obscure way, less favourable to the Romanian government (the taking over of the country by the Soviet army). Thus, the idea of an autonomous area where Soviet armies would not have access was overlooked.

moment, the Romanian group had been closely and specifically informed by the government in Bucharest about the behaviour of Soviet troops and their treatment of the civil and military authorities and of the civilians. Aware of the importance of Romania's taking part in the war, the Romanian authorities would do their best to lay as soon as possible the foundations of a future co-operation with the commanding structures of the Red Army. To this end, the Romanian Department of Military Structures would even draw up a document called *Detailed Norms to ensure collaboration with the Soviet army*[1].

Unfortunately, with the signing of the Truce Convention on the 12th of September 1944, the subordination of the operative structures in the Romanian army became official; the first article read: *all enterprise against Germany and Hungary undertaken by the Romanian army, naval and air forces here included, will be supervised by the Allied (Soviet) High Command*[2]. It was the Allied (Soviet) Control Commission, subject to the same Allied High Command, that had to supervise how the Truce provisions were brought into operation[3].

During truce negotiations, the government led by Stătescu took a firm stand on the issue of war prisoners and deported persons; before leaving for Moscow, the members of the Romanian delegation were thoroughly instructed to take all necessary steps towards their release.

On the 28th of August, the Minister for Foreign Affairs Grigore Niculescu-Buzeşti let the Romanian Legation in Ankara know that *the Romanian government was pleased to receive the official acknowledgement of the statement made by Molotov on the 25th of August*, but its observance was conditioned by the following: *Romanian troops should no longer be disarmed, whereas the troops that had already been disarmed should be armed again and placed at the disposal of the Romanian government to take action against Germany*[4]. The directives of the Romanian minister also had in view the Romanian fleet in Constanta. But on the 1st of September the problem was still unsolved, at which point the Romanian Minister for Foreign Affairs sent a telegram to the same Legation in Ankara and let them

[1] Archives of the Defence Department, fund 948, file 856, p. 124

[2] The complete text of the Truce Convention in *România, marele sacrificat…,* op. cit. pp. 311-314.

[3] In fact, by resorting to the text of the convention and by enjoying almost complete control of the Allied (Soviet) Control Commission, the Soviets would try to get total control over the internal political situation, claiming that they wanted to secure *peace and order beyond the front*. They were practically free to take any course of action they wanted, as long as they could loosely interpret and bring into operation the Truce provisions.

[4] Archives of the Defence Department, fund 71/1920-1944, Turkey, Telegrams, Ankara, pp. 134-135

know about the occupation regime set up by the Red Army and the fact that there had been delays in establishing direct contact with the Soviet commanding structures[1].

As for the condition of the Romanian troops, it was mentioned the fact that *the disarming process was not as extensive as before, but it was still going on*, pointing out that the measures taken by the Red Army could only damage the country's sovereignty and independence[2]. The topic would occur over and over again in the newspapers the authorities in Bucharest would send to the Romanian delegation. As they kept presenting how difficult was for them to efficiently communicate with the commanding structures of the Soviet armies which had set up an occupational regime, the Romanian government would also try to bring to attention again their desire that every effort should be made in order to respect the Soviet statement made on the 25th of August. They insisted upon the important part played by the Romanian army on the 23rd of August, thus asking for another major problem to be solved: the release of the Romanian military who had been captured on the front in Moldova after the 23rd of August and who were now essential and could be sent to fight back German and Hungarian troops that were preparing offensive attack. Nobody doubted the Red Army's operational skills, but the return of the Romanian military was likely to further stimulate and raise the spirits of Romanian soldiers and officers; thus, Romania could take a more active and efficient part in the cause of the United Nations. As for the disarmament of Romanian troops, mention was made of the fact that *an agreement had been reached with General Tolbukin, who declared that disarmament would never be heard of again*. Unfortunately, Romanian authorities had been informed that the disarming process had not come to an end; it was still going on, especially in some areas in Muntenia. Therefore, the Romanian government was confident that all these problems would be dealt with upon the signing of the Truce documents [3]– an event which kept being postponed.

The commanding structures of the Romanian army, that is the Romanian Department of Military Structures and its head, General Gheorghe Mihail were to pay special attention to this problem and to take the course of action that the Romanian party had hoped for, shortly after the 23rd of August. Their will was voiced by their representative in the Romanian delegation, General Dumitru

[1] *Ibidem*, vol. VIII, p. 186
[2] *Ibidem.* Obviously, the specification was nothing more but a reiteration of what had been stated in the telegram sent on the 28th of August: the problems and the solutions envisaged were much the same.
[3] *Ibidem*, p. 241

Dămăceanu, who brought up the difficult situation of the Romanian troops that had been prevented from leaving the concentration camps in Moldova[1]. At some point previous to the signing of the truce convention[2], in an attempt to synthesise the steps taken towards the Soviet military authorities, the Department of Military Structures would let all Romanian military know that *all efforts had been made towards the release of the officers and of the troop that had been disarmed and were arbitrarily held hostages by the Soviets*[3].

The arrival of the Romanian delegation at Moscow did not automatically mean concluding the truce, the content of which was only presented as final text on the 10th of September 1944. The delay can hardly be accounted for and it resulted in the Convention being signed on the 12th of September. During Truce negotiations, the Romanian party brought up again the problem of Romanian war prisoners taken by the Red Army on the front in Moldova. On behalf of the government in Bucharest, the delegation requested that the disarming by the Red Army cease and they justified their request by stating that on the 24th of August, at 4 a.m., the Romanian Department of Military Structures had put an end to warfare against the Soviet army, and the official state of war had been made public by the Romanian government on the 25th of August[4].

Despite the fact that the Truce had not yet been signed, Romanian representatives felt that Romanian troops were entitled to their armament, as they were actively taking part in fighting against Germany. The common cause could not be supported by disarming and confining Romanian soldiers and officers, *consequently, it was essential that Romanian armies that had been disarmed to be armed again as soon as possible* to enable them to take action against Germany[5]. The Romanian party also took into account the officers and crew in the Danube Delta and on the Black Sea which were forced to surrender by an ultimatum delivered by the commanding structures of the Soviet fleet[6].

By supporting with arguments the proposals made by the Romanian party, the Romanian military representative, General Dumitru Dămăceanu, would insist

[1] Archives of the Defence Department, fund M. St. M., section 3, file 2876, p 23. Dumitru Dămăceanu, who had just been promoted to the rank of general, had been instructed ever since the 27th of August to ask for the Romanian troops *to be sent to an unoccupied area*.
[2] *Ibidem*, fund 948, file 1478, p. 244.
[3] *Ibidem*, pp. 205-206.
[4] This would have tremendous impact on the German troops, as General H. Friessner stated that German troops *were in utter chaos*.
[5] Apud Oşca, Al., Chiriţoiu, Mircea, *Armistiţiu sau Dictat (Truce or Dictate)* in R.I.M, no 2/1995, p. 12.
[6] *Ibidem*

upon the precarious strategic condition of the Romanian army which, at the time, only had at its disposal *one armed division, since the others were meant for inland and the ones that had been withdrawn from Moldova had been deprived of military equipment by the Soviet Union*[1]. Mention was also made of the body of troops 5, 6 and 7 which had been disarmed by the Soviets after the 23rd of August and it was suggested that the armament be handed back in order to provide the necessary equipment to the 12 Romanian divisions that were to leave for the West front, in keeping with the terms of the Truce Convention.

In the matter of the Romanian prisoners who had been in the Soviet Union from the beginning of the war to the moment when hostilities between the Romanian and the Russian armies ceased, the members of the Romanian delegation had definite, clear suggestions to make. Although they admitted that the proposal was not intended as a commitment for the Soviet government to hand them back their arms, the Romanian delegation emphasised that if this happened, it could only benefit the fight against Germany and it would help the Romanian party bring into more efficient operation the provisions of the Truce Convention[2]. By declining, the Soviet party would thus state that the problem is within the scope of military technicians, of little present interest, despite the urge voiced by the Romanian representatives.

By going over V. M. Molotov's conversational notes on receiving the Romanian delegation on the occasion of the truce being concluded, one thing becomes transparent: the Soviet party was well aware of the fact that Romanian military were prepared to start solving military problems. This argument was rejected by the Soviet representative, who argued that *the war had been going on for three years, and now they only needed a few weeks to move on and embrace the new conditions*[3]. The Soviet high official also stated that, for military reasons, the proposals made by the Romanian delegation would only be analysed and dealt with *in accordance with the extent to which the Romanian government would become*

[1] Further reference The Shorthand Report of the sessions to conclude the truce between the Allied Powers and Romania, in *România, marele sacrificat,* pp. 297-309

[2] The issue of repatriating or of releasing the Romanian military captured by the Soviets either before or after the 23rd of August was not to be taken up, in terms of international law, before the Peace Conference in Paris in February 1947, whereas Romania was bound by convention to set free all the allied prisoners captured by the Romanian army. The Soviet Union would show no benevolence until after the 6th of March 1945, when the government led by Petru Groza and controlled by the Communists came to power.

[3] *Misiunile lui A. I. Vâşinski,* Institutul Naţional Pentru Studiul Totalitarismului, Bucureşti, 1997, p. 66.

involved in the war against Germany[1]. Obviously, during negotiation, that kind of statement on behalf of the Soviet party could only provide them with more opportunities to blackmail the Romanian party by consistently delaying a resolution in keeping with the terms of the truce that was to be concluded, that is *sine die.*

The return home of the Romanian delegation, after the Truce had been concluded, would bring about controversy, both within the Council of Ministers and within political parties. Whereas the Communist Party showed gratitude for the "generous" offers made to Romania, the leaders of historical parties were extremely sceptical about how the provisions of the Truce Convention would be applied and interpreted by the Soviets[2].

During the encounters between the representatives of the Romanian delegation with members of the government, General Dumitru Dămăceanu was to confirm that he had taken particular interest in the matter of Romanian war prisoners. His proposals envisaged grouping them into two: on the one hand, the prisoners taken between the 22nd of June 1941 and the 24th of August 1944, on the other hand, the prisoners were taken after the 24th of August, 4 a.m. The demands made by the Romanian military man included *releasing in the shortest time possible the Romanian prisoners taken before the 23rd of August and then handing back all Romanian units and formations alongside with their equipment and ammunition dumps, including the war ships on the Danube and the Black Sea, that had been captured and disarmed after the 24th of August, 4 a.m.*[3] The answers the Romanian military man received from the homologous parts as representatives of the Allies suggested, once again, that the problem was to be solved in accordance with *the military co-operation and assistance Romania would offer against German and Hungarian forces*[4]. Consequently, the Truce Convention would stipulate nothing about the condition of Romanian war prisoners who were kept in camps by the Soviet Union; mention was only made of *releasing the allied prisoners* taken by the Romanian army. The only part the Convention played was that of wearing away the effects of the *coup d'Etat* on the 23rd of August 1944 which posed serious threats to Kremlin's intentions about Romania's post-war status.

[1] Ibidem. At the time, the Romanian government had already become entirely involved in the fight against German troops which had not left the country, paving the way for the Red Army, whereas the latter was disarming and preventing Romanian soldiers from leaving the camps along the frontline, despite their having ceased hostilities.

[2] Further reference, the shorthand reports of the Council of Ministers on the 1st and on the 16th of September 1944, on concluding the Truce Convention.

[3] Futher reference R.I.M., Al. Duţu, op. cit. p. 47

[4] Ibidem

The controversy between Romanian representatives and Soviet representatives within the Allied (Soviet) Control Commission would only emphasise that neither party trusted that it was possible to solve the problems raised by the interpretation and the application of the text of the Truce Convention.

REFERENCES:

1. *** *August 23rd 1944. Documents*, vol 1, Bucureşti, Editura Ştiinţifică şi Enciclopedică;
2. Oşca, Al., Chiriţoiu, Mircea, *Armistiţiu sau Dictat (Truce or Dictate)* in R.I.M, no. 2 (20)/1995;
3. Bărbulescu, Mihai, Dennis, Deletant, Keith, Hitchins, Serban, Papacostea, Pompiliu, Teodor, *Istoria României*, Bucureşti, Editura Enciclopedică, 1999;

FROM SENTENCE TO TEXT

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Abstract: *We are used to applying the term text to any stretch of language which makes coherent sense in the particular context of its use. So conspicuous a linguistic reality, the text may be either spoken or written, either as long as a book or as short as a cry for help. Linguistic form is important but is by no means of itself sufficient to give a stretch of a language the status of text. For example a road – sign reading Dangerous Corner is an adequate text though comprising only a short noun – phrase. It is understood as an existential statement, paraphraseable as something like There is a dangerous corner near by, with such block language features as zero article, that are expected in notices of this kind. By contrast, a sign at the roadside with the same grammatical structure but reading Critical Remark is not an adequate text, because although we recognize the structure and understand the words, the phrase can communicate nothing to us as we drive by, and thus is meaningless.*

Keywords*: Ellipses , pro – forms, Spatial Relations, Time Relators*
Jel Classification: Y - Miscellaneous Categories

1. Introductory Considerations

We are used to applying the term *text* to any stretch of language which makes coherent sense in the particular context of its use. So conspicuous a linguistic reality, the text may be either spoken or written, either as long as a book or as short as a cry for help. Linguistic form is important but is by no means of itself sufficient to give a stretch of a language the status of *text*. For example a road – sign reading *Dangerous Corner* is an adequate text though comprising only a short noun – phrase. It is understood as an existential statement, paraphraseable as something like *There is a dangerous corner near by*, with such block language features as zero article, that are expected in notices of this kind. By contrast, a sign at the roadside with the same grammatical structure but reading *Critical Remark* is not an adequate text, because although we recognize the structure and understand the words, the phrase can communicate nothing to us as we drive by, and thus is meaningless.

Far from being a matter of grammar alone, it is primarily by the choice of vocabulary that language connects us with the world beyond language. Moreover, lexical choice is constantly made use of to shape the internal cohesion of texts as obvious in the use of the hypernymically related *family, children, parents,* and *fruit, apple, Granny Smiths* in the following example:

I like my family to eat lots of fruit, and Granny Smiths are especially popular because this apple has a juicy crispness much enjoyed by the children and their parents alike.

Let us further exclude all aspects of text construction other than grammar and pragmatics features and their concomitant prosody and punctuation so as to focus our attention only on such a discourse problem as text – oriented place and time – relator issue.

2. Place and Time Relators

Textual structure requires firm orientation in respect to place and time. Consider the following example:

Years ago, I lived for a time in the Far East, where my father worked at a naval base. I've been back there once to look at our old home but that was after the base had closed.

In relation to the implicit *here and now* of the speaker and hearer, the text refers to one other location in space and two other 'locations' in time. We are impelled to imagine a remote place where for some long unspecified span in the past, there had existed a naval base. Within that period, for a shorter but also unspecified span, the speaker had lived there. Between the *here an now* reference point and the end of the unspecified span in the pas, an interval is mentioned and narratively represented as without duration. It is noteworthy that the temporal and locational relations are clear though no dates or precise places are given: the *Far East* is *far* only from (say) Europe and it is *east* only in relation to somewhere that lies to the west of it; the time is *long ago* only in relation to now – it was itself *now* when the speaker lived in the Far East.

2.1. Place Relators. Ellipses and Pro – forms

2.1.1. Spatial Relations

As for spatial relations, some of them are firmly linked to grammatical expressions which are heavily exploited in textual structure. Thus, an opening question or statement will normally involve reference to location in space (as well as in time):

Where are you going tonight? (1)

It's ages since I was over there. (2)

On Tuesday evening, I was at the front door talking to a caller. Suddenly we heard a crash and two cars collided just opposite. We hurried across to see if we could help. One driver was scrambling out, bleeding profusely, and my visitor helped him over to the pavement. Then along came some people, running up the street. I dashed back in and phoned for help. When I went out again, the other driver was trying to move the car down the road a little and in to the side. (3)

In all three examples, spatial reference is essential, as well as orientation to the participants' *here*: *where* in (1) entails a *here* from which to set out; *over there* in (2) entails 'in contrast to here'. But let us look more closely at the part played by spatial reference (3), both in respect to orientation and to the structure of the narrative.

Even totally out of the context, the institutionalized phrase *at the front door* would be understood as referring to the main entrance of someone's home, whether this was a house or a small apartment. Likewise, *just opposite* is at once understood as *just opposite* to where the speaker and his visitor were standing. A road is implied by the car crash and in this context *across* means 'across the intervening space (of footpath and street)' .The *back in* signifies a return across this intervening space and *into* the speaker's home. The two instances of *out* are of sharply different reference: the first implicitly refers to emergence from the car, the second to re – emergence from the speaker's home (thus correlating with the earlier *back in*. The contrasting *up* (*the street*) and *down* (*the road*) are interesting in making spatial reference not necessarily in terms of relative elevation (though this is not excluded). The immediate contrast is in terms of orientation again, *up* indicating an approach towards the speaker (and his home), and *down* pointing out the converse. The cluster of spatial references provides a continuous set of coordinates in relation to a base (the speaker's home, though this is merely a pragmatic implication) as well as a coherent account of the movements involved in the narrative.

In a text where it was known that a physical slope was involved, *up/down* (*the street*) would be used with respect to this absolute and objective physical feature, and it would outweigh personal orientation. The latter could than be expressed by alternative means: *She went (away) up the street*; *They came down the street*. Contrast also: *They hurried up Fifth Avenue* (i.e. away from *downtown* Manhattan); *They sauntered down Fifth Avenue* (i.e. towards *downtown* Manhattan); *They walked along Fifth Avenue* (neutral as to direction).

2.1.2. Ellipses and Pro – forms

Where place relators operate in text structure, ellipsis is often involved:

He examined the car. The front was slightly damaged. (1)

The building was heavily guarded by police. The windows on the top level / at the top were covered with boards. (2)

The ellipted items in (1) and (2) are *of the car* and *of the building*, respectively. Often the ellipted items are not in the previous context, but are understood from the situational context (either accompanying the communication or established by the communication):

The traffic lights eventually changed. She walked across quickly. (3)

Across here implies *the road* or similar noun phrase.

A few place adverbs do not involve ellipsis: *here, there, elsewhere,* the relative *where*, and (in formal contexts) *hence, thence, hither*, and *thither*. They are pro – forms:

The school laboratory reeked of ammonia. Here, during the first week of the term, an unusual experiment had been conducted. (4)

All my friends have been to Paris at least once. I am going there next summer for the first time. (5)

As it may be easily noticed, *here* in (4) is a substitute for *in the school laboratory* and *there* in (5) for *to Paris*.

In sentences like *Stand there* and *Here it is*, the pro – forms may refer directly to the situational contexts without any linguistic mention of location, but with orientation to the speaker:

I'm glad to welcome you here, especially since at the last meeting I could not be there.

2.1.3. A Deeper Insight in the Spatial Reference Problem

Place relators may often be noticed to comprise two components, and most commonly these are a dimension or direction indicator plus a location indicator. The latter is usually an open – class noun (or proper noun), but its locational use is often institutionalized, making the whole expression quasi – grammatical. Examples:

at the window
on the ceiling
in the air
at the seaside
in town
off work

on board
on the way

Another common type of pairing is a distance indicator plus a dimension indicator; for example:

not far / further / farther + in, out, off, away, from
nearer + in
nearer + to + noun phrase
high(er) + up
low(er) + down
close + by
close + to + noun phrase

The partially antonymous *home* and *abroad, ashore* and *on board* are exceptional in combining the dimension and location factors:

After being out for a couple of hours, I'm now going (staying) home for the evening. (reference to personal residence)

After living (being / going) abroad, I like to come (be) home (= my own country) for a year or so.

Locational connections in relation to coherence are not merely a necessary feature of individual texts. It is customary in newspapers to group the otherwise separate news – item texts on a regional basis. So too in radio broadcasts, a place relator may serve to give some kind of coherence to otherwise unrelated stories:

They are worried that another strike could break out in the United States similar to the one that affected Canada's economy so seriously two years ago.

ÌN CÁNADA news is coming in of a plane accident near Toronto. The aircraft, a privately owned four – seater ...

The textual justification for *ÌN* is that a main focus on *Canada* would be misleading since *Canada* is in some sense 'already given'.

2.2. Time Relators

Like space, time has its lexically specific and labelled 'areas' and 'locations'. Along with open – class nouns, some of them – like places – are treated as proper nouns: *century, decade, year, 2005, February, week, day, Thursday, evening,* etc. Again like units of space, these nouns have an institutionalized and hence quasi – grammatical use. In addition to being elements in clause structure, they lend themselves to the connections and transitions of textual structure:

I've been working on this problem all year and I must find a solution before January when I'm due to go abroad for a month or so. (1)

Nouns of more general meaning are still more firmly harnessed for grammatical use:

I've been working for a long time. (2)

I'm going abroad for a while. (3)

She hasn't visited me for ages. (4)

In addition, therefore, to closed – class items like *afterwards*, we take account here of numerous open – class words which, though with clear lexical meaning, are largely used in the constant process of keeping track of the many and complex references that are necessary for coherent text. Since time passes irrespective of location (which need not change), temporal cues to periods, and to references *before*, *after*, *within*, and *during* these periods, are more inherently essential than locational cues.

Once a time reference has been established, certain temporal adjectives and adverbs may order subsequent information in relation to the time reference.

The temporal ordering situations would be the following:

a). Temporal ordering PREVIOUS to a given reference:

- ADJECTIVES: *earlier, former, preceding, previous, prior*

  For example:

  He handed in a good essay. His previous essays (i.e. 'those done earlier') were all poor.

- ADVERBIALS: *already, yet, before, beforehand, earlier, first, formerly, hitherto* (formal), *previously, so far, yet*; and phrases with pro – forms: *before that, before this, before now, before then, by now, by then, until now, until then, up to now, up to then*

  For example:

  I shall explain to you what happened. But first I must give you a cup of tea.

  First is to be interpreted here as 'before I explain to you what happened'.

b). Temporal ordering SIMULTANEOUS with a given time reference:

- ADJECTIVES: *coexisting* (formal), *coinciding* (formal), *concurrent* (formal), *contemporary*, *contemporaneous* (formal), *simultaneous*

  For example:

  The death of the President was reported this afternoon on Cairo radio. A simultaneous announcement was broadcast from Baghdad.

  Here *simultaneous* means 'simultaneous with the report of the death of the President on Cairo radio.'

- ADVERBIALS: *at this point, concurently* (formal), *contemporaneously* (formal), *here, in the interim* (formal), *meantime, meanwhile, in the meantime,*

in the meanwhile, now, presently, simultaneously, then, throughout, and the relative *when*

For example:

Several of the conspirators have been arrested but their leader is as yet unknown. Meanwhile the police are continuing their investigation into the political sympathies of the group.

Here *meanwhile* means 'from the time of the arrests up to the present'.

c).Temporal ordering SUBSEQUENT to a given time reference:

- ADJECTIVES: *ensuing* (formal), *following, latter, next, subsequent* (formal), *succeeding* (formal), *supervening* (formal)

  For example:

  I left her at 10 p.m. and he was almost asleep. But at some later hour she must have lit a cigarette.

  Here *later* might mean 11 p.m. but equally 4 a.m., a time otherwise called 'the *early* hours of the morning'.

- ADVERBIALS: *after, afterwards, (all) at once, finally, immediately, last, later, next, since, subsequently* (formal), *suddenly, then;* and the phrases *after that, after this, on the morrow* ('the day after')

  For example:

  The manager went to a board meeting this morning. He was then due to catch a train to London.

2.3. Tense, Aspect and Narrative Structure

As a further indication of the importance of time in language, all finite clauses (and many nonfinite ones) carry a discrete indication of tense and aspect. although the contrasts involved are severely limited in comparison with adverbial distinctions, they contribute to the contextual cohesion and progression. Compare the different implications in the second part of what follows:

She told me all about the operation on her hip.

It seemed to have been a success. (1)

It seems to have been a success. (2)

In (1), in accordance with our expectations with respect to sequence of tenses and backshift, the past ties the second part to the first, and thus, like this, derives its authority from the woman concerned: 'It seemed *to her*...'; that is, '*She* was of the opinion that the operation had been successful'. The possibility of repudiation is therefore open: 'Unfortunately, this is not so.' In (2), by contrast, the present disjoins

the second part and may imply an orientation to the 'I' narrator: 'It seems *to me*...', '*I* am of the opinion...'.

Alternation of past and present in this way is a regular mode of switching reference from the 'then' of the narrative reference to the 'now' of both the narrator and the hearer or reader (some items like parenthetic *you see* being confined to this 'now'):

As a child, I lived in Singapore. It's very hot there, you know, and I never owned an overcoat. I remember being puzzled at picture books showing European children wrapped up in heavy coats and scarves. I believe I thought it all as exotic as children here think about spacemen's clothing, you see. (3)

Let us consider the instances of past tense in this text: *lived, owned, thought.* Not merely are these verbs morphologically identical: the text actually represents the past as being referentially identical. All the verbs refer back to a stretch of time during which these things were true.

But past tenses need refer neither to the same time nor to stretches of time. With verbs which connote discrete actions, a narrative string of past tenses will be interpreted as referring to a sequence of events represented by the series of verbs as in the following example:

Do you want to hear about my adventures last Thursday? I got up at six, had some coffee, and set off for London. I took a taxi, arrived at Bucharest, started to check in my case, patted my pocket, and found – no ticket, no passport. Picked up my case, caught the underground, got another taxi, went to Galatz, arrived at my parents' front door, rushed in, and of course gave my poor family the shock of their lives. (4)

More usually, however, texts comprise much greater time – reference complexity then the previous examples show. They will have a mixture of state verbs and discrete action verbs; the narrative will weave backwards and forwards, with a mixture of tenses and aspects, of finite and nonfinite clauses, enabling the narrator to depart from the linear sequence of historical order so as to both vary the presentation and to achieve different (e.g. dramatic) effects:

I was reading Chaucer's 'Troilus' the other night, and it suddenly occurred to me to wonder what Chaucer expects / expected us to make of the fact that Criseyde has / had been widowed, whereas Troilus has / had never even been in love. Surely this is significant, yet I have never thought of it before.

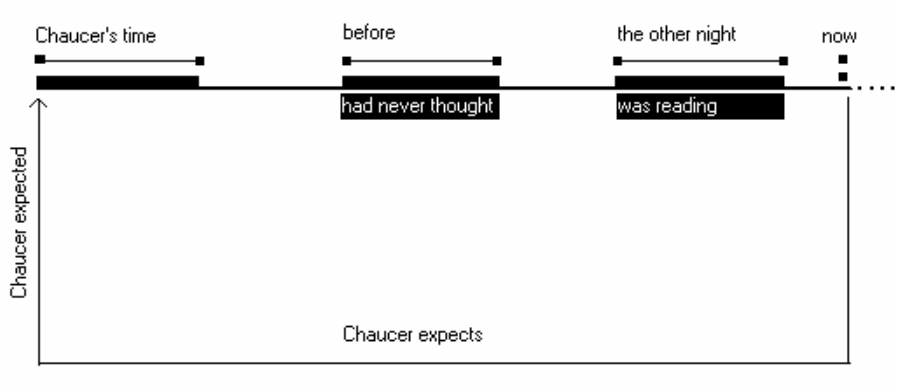

Fig. 1

Here we have the additional complication of an account of a narrative within a narrative (Fig. 1). The account of the narrator's reading and reflection is itself of some complexity: within a period in the past, a durative activity (*reading*) is represented as being interrupted by a sudden thought. But the thought had significance not merely at the time of thinking it nor merely during the rest of the reading period; it is represented as being permanently significant. The appeal to the hearer (*Surely*...) does not connote that *is* refers to the *now* of the speaker and hearer. The narrator is here using the present tense of timeless reference. It is the potentiality for such a use of the present that provided us with the two possibilities, 'Chaucer expects' and 'Chaucer expected'. The latter takes the historical view: a comment of the poet as he wrote in the fourteenth century. The former treats the Chaucer cannon as timeless, permanently existing.

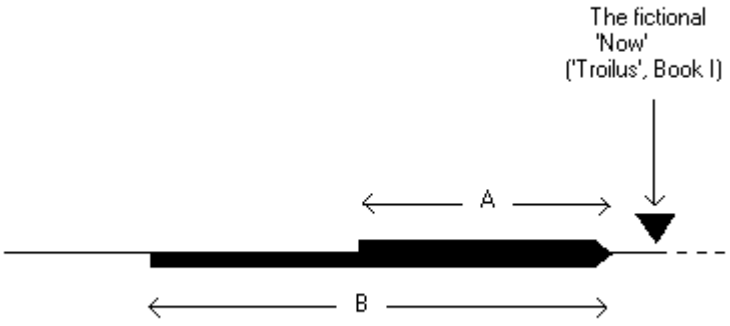

Fig. 2.

An analogous choice exists in referring to the fictional narrative of Chaucer's poem. In Fig. 2, A represents the (unknown) period during which Criseyede has been a widow before the poem begins; B represents the longer period (in effect, Troilus' whole life) during which Troilus has never been in love. It will be noticed that this commentary adopted the 'timeless' view of the fiction ('When the poem *begins*, Criseyde *has been* a widow for some time').

Actually, so both generous and subtle a subject, text analysis is far more intricate than approaching tense complexity in narrative, and can be entirely comprised neither in the very few pages of this paper nor in a whole library, as this matter is conspicuously inexhaustible and open to numberless linguistic analyses. Nevertheless, linguists task is to minutely investigate language phenomena, so as to better capture their mechanisms, to master language – learning abilities, and actually to assist the communication process in its entirety.

REFERENCES:

1. Aitchison, J., *Language Change: Process or Decay?*, London, Fontana Paperbacks, 1981;
2. Asher, R.A., *The Encyclopaedia of Language and Linguistics*, London, Penguin Press, 1994;
3. Berry, M., *An Introduction to Systemic Linguistics: Structures and Systems*, London, Batsford, 1975;
4. Dakin , J., *The Language Laboratory and Language Learning*, London, Longman, 1973;
5. Edwards, JR., *Language and Disadvantage*, London, Edward Arnold, 1978;
6. Firth, J.R., *Papers in Linguistics 1934 – 1951*, London, 1964;
7. Halliday, M. A.; Hasan, R., *Cohesion in English*, London, Longman, 1976;
8. Halliday, M. A.; Hasan, R. *Language, Text and Context: Aspects of Language in a Semiotic Perspective*, Oxford, Oxford University Press, 1989;
9. Harmer, Jeremy, *The Practice of English Language Teaching*, Longman Group UK, 1991;
10. Hudson, R., *Sociolinguistics*, Cambridge, Cambridge University Press, 1981;
11. Krashen, S. D., *The Input Hypothesis: Issues and Implications*, London, Longman, 1985;

12. James, C., *Contrastive Analysis*, London, Longman, 1980;
13. Oxford, R. L., *Language Learning Strategies*, New York, Newbury House, 1990;
14. Richards, J. C., *The Language Teaching Matrix*, Cambridge University Press, 1990.

ECONOMIC IMPACT OF TOURISM

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Abstract: *As the traffic of tourists increased in a particular area, it was observed that environmental and ecological balances were disturbed due to over commercialization. The scenic beauty was made more 'customer friendly' and the natural tourism products more accessible and 'saleable' by man.*

Environmentalists are agitated about the damages and carelessness showed by the tourists. Culturally and socially, tourism can impact the destination country, but its effect cannot be solely attributable to simple tourist activities. On the road to development, tourism products have also witnessed some changes. As the world changed and developed, new necessities were identified. As people became more aware, the needs changed and new tourism products were developed to satisfy these new found needs. The last few years have seen the emergence of new areas in tourism like, special interest tourism, green tourism, eco tourism, social tourism and so on.

Key words: g*ross domestic product, international tourism, expenditure*

Jel Classification: *Q - Agricultural and Natural Resource Economics; Environmental and Ecological Economics, Q2 - Renewable Resources and Conservation, Q25 - Water*

Earner of foreign exchange

Tourism has major economic significance for a country. The receipts from international tourism are a valuable source of earning for all countries, particularly, the development. Visitor-spending generates income for both public and private sectors, besides affecting wages and employment opportunities. Although tourism is sensitive to the level of economic activity in the tourist-generating countries, it provides more fixed earnings than primary products. The income from tourism has increased at a higher rate than primary products. The income from tourism has tended to increase at a higher rate than merchandise export in a number of countries especially in countries having a low industrial base. Now there is practically an

assured channel for financial flows from the developed countries to the developing countries raising the latter's export earnings and rate of economic growth. Tourism, therefore, provides a very important source of income for a number of countries, both developed and developing. The figures from World Tourism Organization (WTO) indicate that, among the world's top 40 tourism earners about 18 were developing countries including India, in the year 1995. Regarding the number of visitor arrivals, in some countries there were more visitor arrivals than the population. France with a population of 57 million received 74.5 million visitors in the year 2000. Similarly Spain with a population of 37 million received 48.5 million visitors during the same year. Several island countries, like the Caribbean Islands, depend greatly on tourist income resulting from visitor arrivals. These earnings form a major part of the gross domestic product (GDP). Even developed countries like Canada which derived over 13% of its gross domestic product from international visitors in the year 1999, rely heavily on income from tourism. Tourism forms a very important source of foreign exchange, for several countries. Although the quantum contributed in foreign currency per visitor varies from destination to destination, the importance of receipts from tourism in the balance of payment accounts and of tourist activities in the national revenue has become considerable for a number of countries.

The major economic benefit in promoting the tourism industry is in the form of earning foreign exchange. Income from these foreign-exchange earnings adds to the national income and, as an invisible export, may offset a loss of the visible trading account and be of critical importance in the overall financial reckoning. This is truer in the case of developing countries particularly the small countries, which depend heavily upon primary products such as a few basic cash crops where tourism often offers a more reliable form of income. In the case of some European countries, namely Spain, Portugal, Austria, France and Greece, the invisible earnings from tourism are of a major significance and have a very strong positive effect on the balance of payments.

Tourism is therefore a very useful means of earning the much-needed foreign currency. It is almost without a rival as an earning source for many developed as well as developing countries. These earnings assume a great significance in the balance of payment position of many countries.

The balance of payments shows the relationship between a country's total payments to all other countries and its total receipts from them. In other words, it may be defined as a statement of income and expenditure on international account. Payments and receipts on international account are of three kinds:

- the visible balance of trade relating to the import and export of goods;
- invisible items (relating to the services such as shipping and Insurance);
- capital transfers.

The receipts from foreign tourism form an 'invisible export', just like other invisibles which come from transportation and shipping, banking and insurance, income on investments, etc. Because most countries at times have serious problems with their international payments, much attention comes to be focused on tourism because of its potentially important contribution to, and also effect upon, the balance of payments.

The receipts from international tourism, however, are not always net. Sometimes expenditures are involved which must be set against them. Net foreign exchange receipts from tourism are reduced principally by the import cost of goods and services used by visitors, foreign exchange costs of capital investment in tourist amenities and promotion and publicity expenditure abroad. According to Peters, "Certain imports associated with tourist expenditures must be deduced… the importation of material and equipment for constructing hotels and other amenities, and necessary supplies to run them; foreign currency costs of imports for consumption by international tourists; remittances of interests and profits on overseas investment in tourism enterprises, mainly hotel construction; foreign currency costs of conducting a tourism development programme, including marketing expenditure overseas". Reliance on imports to meet the tourist's needs does not, in any way deny developing countries the opportunity of earning foreign exchange in supplying such goods and services. Imports are, to a large extent, essential to the operation of the tourist sector as to that of other sectors.

The important question is whether the value added domestically on an item or service in is maximized? Maximization of import substitution without due regard to the effect on overall tourism receipts (i.e. demand) may be counterproductive. Also, differences in the pattern and level of reliance on imported goods and services, capital equipment and manpower are very wide, depending upon the level of development of a country. In some cases, this reliance is simply due to a lack of resources that transform into items which are to be sold by the industry. In other cases, the industry has not yet drawn on such supply potential, for which it may be an important stimulus. There is a general need for careful programmes of positive import substitution.

Multiplier effect

Without taking into account receipts from domestic tourism, international tourism receipts alone contribute to a great extent. The flow of money generated by tourist spending multiplies as it passes through various sections of the economy. In addition to an important source of income, tourism provides a number of other economic benefits, which vary in importance from one country to another; depending upon the nature and scale of tourism. The benefits from infrastructure investments, justified primarily for tourism such as airports, roads, water supply and other public utilities, may be widely shared by the other sectors of the economy. This enables us to understand how tourism impacts development in the economy. Tourist facilities such as hotels, restaurants, museums, clubs, sports complexes, public transport, and national parks are also used by domestic tourists and visitors, businessmen and residents, but still a significant portion of the costs are sometimes borne by international tourists. Tourists also contribute to tax revenue both directly through sales tax and indirectly through property, profits and income taxes.

Tourism provides employment, develops infrastructural facilities and may also help regional development. Each of these economic aspects can be dealt with separately, but they are all closely related and are many times considered together. Let us first look at the income aspect of tourism. Income from tourism cannot be easily measured with accuracy and precision. This is because of the multiplier effect. The flow of money generated by tourist spending multiplies as it passes through various sections of the economy through the operation of the multiplier effect. The multiplier is an income concept.

The Concept

The ‘multiplier’ measures the impact of extra expenditure introduced into an economy by a person, it is, therefore, concerned with the marginal rather than average changes. In the case of tourism, this extra expenditure in a particular area can take the following forms:

a) Spending on goods and services by tourists visiting the areas;
b) Investment of external sources in tourism infrastructure or services;
c) Government (foreign or domestic) spending (e.g., domestic government spending on infrastructure in a region or foreign government aid);
d) Exports of goods stimulated by tourism.

The expenditure can be analyzed as follows:

a) Direct Expenditure;

In the case of tourism, this expenditure is made by tourists on goods and services in hotels and other supplementary accommodation units, restaurants, other tourist facilities like buses, taxis coaches, railways, domestic airlines, and for tourism-generated exports, or by tourism related investment in the area.

b) Indirect Expenditure;

This covers a total sum of inter-business transactions which result from the direct expenditure, such as purchase of goods by hoteliers from local suppliers and purchases by local suppliers from wholesalers.

c) Included Expenditure;

This is the increased consumer spending resulting from the additional personal income generated by the direct expenditure, e.g. hotel workers using their wages for the purchase of goods and services. Indirect and induced expenditure together are called secondary expenditure.

There are several different concepts of the multiplier. Most multipliers in common use incorporate the general principle of the Keynesian model. The four types of multipliers are intrinsically linked as follows:

a) Sales (Transaction) Multiplier;

This measures the extra business turnover created (direct and secondary) by an extra unit of tourist expenditure.

b) Output Multiplier;

This is similar to the sales multiplier, but it also takes into account inventory changes, such as the increase in stock levels by hotels, restaurants and shops because of increased trading activity.

c) Income Multiplier;

This measures the income generated by an extra unit of tourist expenditure. The problem arises over the definition of income. Many researchers define income as

disposable income accruing to households within the area, which is available to them to spend. However, although salaries paid to overseas residents are often excluded, a proportion of these salaries may be spent in the local area and should therefore be included.

Income Multipliers can be expressed in two ways:

a) the ratio method which expresses the direct and indirect incomes (or the direct and secondary incomes) generated per unit of direct income;
b) normal method, which expresses total income (direct and secondary) generated in the study area per unit increase in final demand created within a particular sector.

Ratio multipliers indicate the internal linkages which exist between various sectors of the economy, but do not relate income generated to extra sales. Hence, on their own, ratio multipliers are valueless as a planning tool.

Employment Multiplier: The employment multiplier can be expressed in one of the two ways:

a) as a ratio of the combination of direct and secondary employment generated per additional unit of tourist expenditure;
b) direct employment created by tourism per unit of tourist expenditure.

Multipliers can be further categorized by the geographical area which is covered by the research, such as local community, a region within a country or the country as a whole. The multiplier mechanism has also been applied to tourism and, in particular, to tourist expenditure. The nature of the tourism multiplier and its effect may be described in the following example:

"The money paid by a tourist in paying his hotel bill will be used by the management of the hotel to provide the costs which the hotel had incurred in meeting the demands of the visitor, e.g., such goods and services as food, drink, furnishing, laundering, electricity, and entertainment. The recipients, in turn, use the money they have thus received to meet their financial commitments and so on. Therefore, tourist expenditure not only supports the tourist industry directly, but also helps indirectly to support many other industries which supply goods and services to the tourist industry. In this way money spent by tourists is actually used several times and spreads into various sectors of the economy. In sum, the money paid by the tourist, after a long series of transfers over a given period of time, passes through all sectors of the national economy, stimulating each in turn throughout the process". On each occasion when the money changes hands, it provides 'new' income and

these continuing series of exchanges of the money spent by the tourists form what economists term the multiplier effect. The more often the conversion occurs, the greater its beneficial effect on the economy of the recipient country. However, this transfer of money is not absolute as there are 'leakages' which occur. Such leakages may occur as a result of importing foreign goods, paying interest on foreign investments, etc. The following are some examples of such leakages:

- payment for goods and services produced outside, and imported into, the area;
- remittance of incomes outside the area, for example, by foreign workers;
- indirect and direct taxation where the tax proceeds are not re-spent in the area;
- savings out of income received by workers in the area (i.e. where there is a low propensity to consume).

Any leakages of these kinds will reduce the stream of expenditure which, in consequence, will limit and reduce the multiplier effect. Income generated by foreign tourist expenditure in countries possessing more advanced economies, which generally are more self-sufficient and less in need of foreign imports which are less self-sufficient and need to support their tourist industries by substantial import. If the developing countries are desirous of gaining maximum economic benefits from tourism, they should strictly control the imported items for tourist consumption and keep foreign investment expenditure at a reasonable level. If the leakages are not controlled then the benefits arising from tourism will be greatly reduced or even cancelled. The most important leakage would arise from expenditure on import of agricultural products like food and drink.

In a primary macro-economic approach to the prospects opened up by tourism establishment in a developing country, it is regarded as advantageous that a good portion of tourist consumption should consist of food products. It is estimated that the major part of these products can be found in those countries, whose economic structure is largely agricultural in character. In this sense tourist consumption, derived from international flow, can offer an assured outlet to a production which is already active within the domestic economy, without raising problems connected with export of such products and could thus be substituted for imported food stuffs and a significant saving effected thereafter.

The host country derives maximum economic benefits from the tourism industry as these savings help in increasing the benefits from the tourism multiplier. This aspect of the question is all the more important as the multiplier effect maintains its efficacy and effectiveness as long as no importation takes place. It follows that if the national economy is to derive the maximum benefit from the

impact of international and national tourism, there is an elementary obligation to find all those products needed for tourist consumption. The dynamics of agricultural production in recent years confirms the ability of developing countries to produce the major part of their agricultural products required for tourist consumption without resorting to massive imports. The tourist economy of any country, if it is to remain healthy, must rely upon local agricultural production and this condition seems today to be on its way to realization in most of the developing countries.

Multiplier of Tourism Income

To sum up, Multipliers are a means of estimating how much extra income is produced in an economy as a result of initial spending or after cash is injected. Every time the money changes hands it provides new income and the continuing series of conversion of money spent by the tourists form the multiplier effect. The more often the conversion occurs, the greater its beneficial effect on the economy of the recipient country. A significant benefit of tourism is development and improvement of infrastructure. The benefits from infrastructure investments, justified primarily for tourism – airports, roads, water supply and other public utilities – may be widely shared by the other sectors of the economy. In addition to development of new infrastructure, the improvements in the existing infrastructure which are undertaken in order to attract tourists are also of great importance. These improvements may benefit the resident population by providing them with amenities which they desire. Furthermore, the provision of infrastructure may provide the basis or serve as an encouragement for greater economic diversification. A variety of secondary industries may be promoted which may not directly serve the needs of tourism. Therefore, it is evident that tourist expenditure is responsible for stimulating other economic activities.

One of the characteristics of under development is that of deficiencies in the basic infrastructures, which lie at the root of a series of problems related to the development of tourism. Development of infrastructure requires a certain size of investment. Tourism provides the size of demand which justifies the development of infrastructure. On the basis of this minimum demand for such facilities and for such social capital, the size of such infrastructural services evolves. Construction of primary infrastructures represents the foundation of any future economic growth, even though they are not directly productive. The tourism industry illustrates the elementary need for basic infrastructure. It has today the important benefit of being able to profit from the existing infrastructures and thus to make a decisive contribution to the growth of the national economy. The international and national tourist traffic, moreover, represents a reward for the capital invested and can now contribute to the financial efforts required for maintenance. The satisfactory degree of development achieved in this specific sector now permits major tourist progress,

while also giving further proof of the complementary character of tourism in relation to other economic sectors. Creation of basic infrastructures for tourist usage will also be of service to the other sectors of the economy such as industry and agriculture. This results in better equilibrium of general economic growth. Tourism also results in tax revenues both at national and local levels. Taxes can provide the financial resources for the development of infrastructure, enhancing and maintenance of some types of attractions and other public facilities and services, tourism marketing and training required for developing tourism, as well as to help finance poverty alleviation programmes by governments both at local and national levels. In addition, tourism-related tax revenues help finance general community improvements and services used by all residents.

WTO's 1998 report on tourism taxation emphasizes that taxation policies in a country must be carefully evaluated in an integrated manner to ensure that tourism-related taxes are giving the necessary substantial revenues. However, taxes should not be so high for the country's international competitive position to be counter productive and produce a loss of tourist traffic. The aim should be to strike a balance between, a level of taxation that maintains a competitive position for the country and reasonable profits for the industry, and, receiving adequate revenues to support investment in and maintenance of the tourism sector, and to contribute towards general community welfare.

Balanced regional development

Another important domestic effect relates to the regional aspects of tourist expenditure. Such expenditure is of special significance in marginal areas, which are relatively isolated, economically underdeveloped, and have unemployment problems. The United Nations Conference on International Travel and Tourism held in Rome in 1963 stated that tourism was important not only as a source of earning foreign exchange, but also as a factor determining the location of industry and in the development of underdeveloped regions. It further stated that in some cases the development of tourism may be the only means of promoting the economic advancement of less-developed areas lacking in other resources. In fact underdeveloped regions of the country usually greatly benefit from tourism development. Many of the economically backward regions contain areas of high scenic beauty and of cultural attractions. These areas, if developed for use by tourists, can bring in a lot of prosperity to the local people. Tourism development in these regions accordingly becomes a significant factor in redressing regional imbalances in employment and income.

Tourist expenditure at a particular tourist area helps the development of the many areas around it. Many countries both developed as well as developing have

realized this aspect of tourism development and are contemplating developing tourist facilities in underdeveloped regions with a view to bringing prosperity there. There is no dearth of areas which could, after they are developed for tourism, become great assets to the region in particular and to the country as a whole. The French government has created a series of new resorts particularly to bring prosperity to the areas which traditionally have been underdeveloped. The Italian government is likewise attempting to develop tourism in Southern Italy in order to help redress the economic imbalances which have long existed between the northern and the southern parts of Italy.

Tourism is to be regarded not as an area of peripheral investment whose benefits will help in creating employment opportunities and in the regeneration of backward regions. In India a similar approach needs to be adopted to develop areas with great tourism potential.

Employment is an important economic effect of tourism. The problems of unemployment and under-employment are more active in the developing countries. Tourism can be looked upon in this light as a major industry which employs manpower on a large scale. The problems which the industrialized countries face in recruiting manpower for the tourists industry confirm that, in any productive process consisting of services, human labour remains the basic need.

If a comparison is to be drawn with the productive sector none of the technological progress achieved has succeeded in rendering the human factor less indispensable than in this sector, and this is true to an absolutely indisputable extent. The high social impact of the tourist industry is well known, for it has repercussions in every other national economic sector through the multiplier effect, which is particularly marked in those services that are complementary to the tourist accommodation industry.

The tourist industry is a highly labour-intensive service industry and hence is a valuable source of employment. It employs a large number of people and provides a wide range of jobs which extend from the unskilled to the highly specialized. In addition to those involved in management there are a large number of specialist personnel required to work as accountants, housekeepers, waiters, cooks and entertainers, who in turn need a large number of semi-skilled workers such as porters, chambermaids, kitchen staff, gardeners, etc. Tourism is also responsible for creating employment outside the industry in its more narrowly defined sense and in this respect those who supply goods and services to those directly involved in tourism are beneficiaries from tourism. Such indirect employment includes, those involved in the furnishing and equipment industries, souvenir industries and farming and food supply.

Construction industry is another very big source of employment. The basic infrastructures-roads, airports, water supply and other public utilities and also construction of hotels and other accommodation units create jobs for thousands of workers, both unskilled and skilled. In many of the developing countries, where chronic unemployment often exists, the promotion of tourism can be a great encouragement to economic development and, especially, employment. However at this point it is, necessary to consider the seasonal nature of the tourism industry. Where general diversification alternatives are scarce, a combination of heavy dependence on tourism and highly marked seasonality calls for measures to develop off -season traffic. Employment multiplier: This multiplier is similar to the Income Multiplier except that in this case a multiplier impact on employment is observed.

Employment Multiplier can be expressed in the following two ways:

a) as a ratio of the combination of direct employment. At the destination, the jobs are directly created in the industry there.

b) as a ratio of secondary employment generated per additional unit of tourist expenditure to direct employment. The workers and their families require their own goods and services giving rise to further indirectly created employment in shops, schools, health care institutions, etc.

Other dimensions

The World Tourism conference which was held at Manila, Philippines in October 1980, considered the nature of tourism phenomenon in all its aspects. The role tourism is bound to play in a dynamic and vastly changing world was also identified. Convened by the World Tourism Organization, the conference also considered the responsibility of various states for the development and enhancement as being more than a purely economic activity of nations and peoples.

The significance of tourism was discussed in detail during the conference. The participants in the World Tourism Conference attached particular importance to its effects on the developing countries.

It stated its conviction “that the world tourism can contribute to the establishment of a new international economic order that will help to eliminate the widening economic gap between developed and developing countries and ensure the steady acceleration of economic and social development and progress in particular of the developing countries.” For more details please refer to the appendix at the end of the chapter.

References:

1. Arnold, J., *Why rural tourism is no picnic, BBC* News, 2004;
2. Baldock, B., Beaufoy, G., 1993, *Nature Conservation and New Directions in the EC Common Agricultural Policy,* Institute for European Environmental Policy. 1993;
3. Fleischer, A., Tchetchik, A., *Does rural tourism benefit from agriculture?* Tourism Management, 2005;
4. Goosens, C., *Tourist information and pleasure motivation, Annals of Tourism Research*, vol. 27, no. 3, 2000;
5. Tribe, J., E*conomics of Leisure and Tourism*, London, Butterworth-Heinemann, 1999;
6. Turtureanu, AG. , *The Actual Management- from theory at mathematic tooling*, Synthesis Publishing house, Galati, 2005;
7. WTO, *Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Suitainable Development*, 1995.

TOURISM PRODUCTS: CHARACTERISTICS AND FORMS

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Abstract: *The tourism product has to be packaged and priced keeping in mind the target customer. Without any doubt, tourism is the main sector that can play a significant part in achieving rapid economic growth and drastically reducing unemployment in our country. Currently, it is the largest foreign exchange earner for our country. The development of the tourism industry on a priority basis is the need of the hour.*

Key words: *tourism product, attraction, accessibility, accommodation.*
Jel Classification: *Q - Agricultural and Natural Resource Economics; Environmental and Ecological Economics, Q2 - Renewable Resources and Conservation, Q25 - Water*

A tourism product can be defined as the sum of the physical and psychological satisfaction it provides to tourists during their travelling *en route* to the destination. The tourist product focuses on facilities and services designed to meet the needs of the tourist. It can be seen as a composite product, as the sum total of a country's tourist attractions, transport, and accommodation and of entertainment which result in customer satisfaction.

Each of the components of a tourist product is supplied by individual providers of services like hotel companies, airlines, travel agencies, etc. The tourist product can be analysed in terms of its attraction, accessibility and accommodation.

Attractions

Of the three basic components of a tourist product, attractions are very important. Unless there is an attraction, the tourist will not be motivated to go to a particular place. Attractions are those elements in a product which determine the choice made by particular tourist to visit one particular destination rather than another. The attractions could be cultural, like sites and areas of archaeological

interest, historical buildings and monuments, flora and fauna, beach resorts, mountains, national parks or events like trade fairs, exhibitions, arts and music festivals, games, etc. Tourist demands are also very much susceptible to changes in fashion. Fashion is an important factor in the demand for various tourist attractions and amenities.

The tourist who visits a particular place for its natural beauty may decide to visit some other attractions due to a change in fashion. Peter has drawn up an inventory of the various attractions which are of significance in tourism. These are given below in a table:-

Inventory of Tourist Attractions

Cultural:	Sites and areas of archaeological interest, Historical buildings and Monuments, Places of historical significance, Museums, Modern Culture, Political and Educational institutions, Religious Institutions
Traditions:	National Festivals, Arts and Handicrafts, Music, Folklore, Native life and Customs
Scenic:	National Parks, Wildlife, Flora and Fauna, Beach Resorts, Mountain Resorts
Entertainment:	Participation and Viewing sports, Amusement and Recreation Parks Zones and Oceanariums, Cinemas and Theatres, Night Life and Cuisine.
Others:	Climate, Health resorts or Spas, Unique characteristics not available elsewhere.

However, the attractions of tourism are, to a very large extent, geographical in character. Location and accessibility (whether a place has a coastal or inland position and the ease with which a given place can be reached) are important. Physical space may be thought of as a component for those who seek the wilderness and solitude. Scenery or landscape is a compound of landforms; water and the vegetation and has an aesthetic and recreating value.

Climate conditions in relation to the amount of sunshine, temperature and precipitation (snow as well as rain), have special significance. Animal life may be an important attraction, firstly in relation to, bird watching or viewing game in their natural habitat and secondly, for sports purposes, e.g. fishing and hunting. Man's impact on the natural landscape in the form of his settlements, historical monuments and archaeological remains is also a major attraction. Finally, a variety of cultural features-ways of life, folklore, artistic expressions, etc. provide valuable attractions to many.

Accessibility

It is a means by which a tourist can reach the area where attractions are located. Tourist attractions of whatever type would be of little importance if their locations are inaccessible by the normal means of transport. A Tourist in order to get to his destination needs some mode of transport. This mode may be a motor car, a coach, an aeroplane, a ship or a train which enables him to reach his predetermined destination. If tourist destinations are located at places where no transport can reach or where there are inadequate transport facilities, they become of little value. The tourist attractions, which are located near the tourist-generating markets, are linked by a network of efficient means of transport.

Accommodation

The accommodation and other facilities complement the attractions. Accommodation plays a central role and is very basic to tourist destinations. World Tourism Organization in its definition of a tourist has stated that he must spend at least one night in the destination visited, to qualify as a tourist. This presupposes availability of some kind of accommodation. The demand for accommodation away from one's home is met by a variety of facilities.

The range and type of accommodation is quite varied and has undergone considerable change since the last half century. There has been a decline in the use of boarding houses and small private hotels. Larger hotels are increasing their share of holiday trade, especially in big metropolitan areas and popular spots. In more traditional holiday and sea-side resorts in Europe and elsewhere, big hotels are keeping their share of holiday resorts. In recent years, some changes have been reflected in the type of accommodation. There has been an increasing demand for more non- traditional and informal types of accommodation. The latest trends in accommodation are holiday villages. In recent years there has been an increase in the popularity of such accommodation.

Accommodation may in itself be an important tourist attraction. In fact, a large number of tourists visit a particular destination or town simply because there is a first class luxury hotel or resort which provides excellent services and facilities. Some countries like Switzerland, Holland, France, Austria, and Belgium have gained a reputation for providing excellent accommodation with good cuisine. Many hotel establishments elsewhere in various countries, especially the resort hotels, have gained a reputation for their excellent cuisine, services and facilities. The

French government for instance, paved the way for tourist development of Corsica by launching a big hotel development programme.

Amenities

Facilities are a necessary aid to the tourist centre. For a sea-side resort, facilities like swimming, boating, yachting, surf-riding, and other facilities like dancing, recreation and other amusements are important for every tourist centre. Amenities can be of two types; natural, e.g. beaches, sea-bathing, possibilities of fishing, opportunities for climbing, trekking, viewing, etc. and man-made, e.g. various types of entertainment and facilities which cater to the special needs of the tourists. Excellent sandy beaches, sheltered from sunshine with palm and coconut trees and offering good bathing conditions form very good tourist attractions. Certain other natural amenities such as spacious waters for the purpose of sailing or the opportunities for fishing and hunting are also very important.

The product for the tourist covers the complete experience from the time he leaves home to the time he returns. The tourist product today is developed to meet the needs of the consumer and techniques like direct sales, publicity and advertising are employed to bring this product to the consumer.

The tourist product is the basic raw material, be it the country's natural beauty, climate, history, culture and the people, or other facilities necessary for comfortable living such as water supply, electricity, roads, transport, communication and other essentials. The tourist product can be entirely a man-made one or nature's creation improved upon by man. A consumer can combine individual products in a large number of ways. There would be many possible destinations, each with a number of hotels, each to be reached by more than one airline. Thus, the potential choice facing the consumer is very large. The large number of tourist destinations has placed at the disposal of a tourist a very large variety of tourist products in abundant quantity from a large number of competing destinations. This eventually, has led to the adoption of the new concept i.e. the marketing concept in tourism by various countries promoting tourism.

Tourism, basically, is an infrastructure based service product. The nature of the service here is highly intangible and perishable offering a limited scope for creating and maintaining the distinctive competitive edge. The effective marketing of tourism needs constant gearing up of infrastructure to international standards and presupposes in its coordination with the tourism suppliers.

In strategic terms, it calls for the action of an integrated approach to management and marketing. In operational terms, it means the implementation of a

better defined, better targeted market-driven strategy for realizing the defined objectives.

The important point to note here is that marketing is applied to situations where the choice can be limited to a relatively small number of brands giving the consumer a reasonable choice. The process of selection thus becomes easier. In the field of tourism this process is taking place by the increased use of "package tours". A package tour is a travel plan which includes most elements of vacation, such as transportation, accommodation, sight-seeing and entertainment. The tourist product is a composite product, whether it is sold as a package or assembled by the individual himself or his travel agent. There are many tourism products that are available to the consumer today. In modern times these products, whether traditional in nature like culture and pilgrimage, or modern like adventure, conventions and conferences, health, medical, etc. are being packaged, promoted and priced appropriately to woo as many tourists as possible.

Tourism products can be classified as under for a better understanding of each of their peculiar characteristics, so that they can be marketed and positioned appropriately:

Natural tourism products

These include natural resources such as areas, climate and its setting, landscape and natural environment. Natural resources are frequently the key elements in a destination's attraction. Look at some examples:

1) countryside;
2) climate- temperature, rains, snowfall, days of sunshine;
3) natural Beauty- landforms, hills, rocks, gorges, terrain;
4) water- lakes, ponds, rivers, waterfalls, springs;
5) flora and fauna;
6) wildlife;
7) beaches;
8) islands;
9) spas;
10) scenic attractions.

The climate of a tourist destination is often an important attraction. Good weather plays an important role in making a holiday. Millions of tourists from countries with extreme climates visit beaches in search of fine weather and sunshine. The sunshine and clear sea breeze at the beaches have attracted many people for a very long time.

In fact, development of spas and resorts along the sea coasts in many countries were a result of the travellers' urge to enjoy good weather and sunshine. In Europe, countries like France, Italy, Spain and Greece have developed beautiful beach resorts. North Europeans visit the Mediterranean coast searching for older resorts like Monte Carlo, Nice and Cannes on the Riviera and new resorts in Spain and Italy. Beautiful beaches of India, Sri Lanka, and Thailand, Indonesia and Australia and some other new destinations are more examples of how good weather can attract tourists. All these areas capitalise on good weather.

Destinations with attractive winter climates, winter warmth and sunshine are also important centres of tourist attraction. Many areas have become important winter holiday resorts attracting a large number of tourists.

Around these winter resorts, winter sport facilities have been installed to cater to the increasing needs of tourists. People coming from warm climates travel for snowfall and cold climate. In countries with tropical climates, many upland cool areas have been developed as 'hill stations'. Hence climate is of great significance as a tourism product.

The scenery and natural beauty of places has always attracted tourists. Tourists enjoy nature in all its various forms. There are land forms like mountains, canyons, coral reefs, cliffs, etc. One of the great all time favourite tourist destination is the Grand Canyon, Arizona. Mountain ranges like the Himalayas, Kilimanjaro, and Swiss Alps, etc. There are water forms like rivers, lakes waterfalls, geysers, glaciers, etc. The Niagara Falls shared by Canada and the United States is an example of how scenic waterfalls attract tourists. Lake Tahoe in California and the, deserts of Egypt are other examples of great tourist products. Other great natural wonders that attract tourists are the Giants Causeway of Northern Ireland, the Geysers of Iceland, the glaciers of the Alps, the forests of Africa etc. Vegetation like forests, grasslands, moors deserts, etc. has all been developed as tourist products.

Flora and Fauna attract many a tourist. Tourists like to know the various types of plants and trees that they see and which trees are seen in which seasons. There are many plants which are specific to certain regions and many times students and travellers visit those areas especially to see those varieties of plants. Thick forest covers, attract tourists who enjoy trekking and hunting activities. Fauna attracts tourists who like to watch birds, wild mammals, reptiles and other exotic and rare animals. Countries in South East Asia have crocodile gardens, bird sanctuaries, and other tourist products that display the fauna of their region. Spas are gaining popularity as modern tourism products all over the world. While most parts of the world have their own therapies and treatments that are effective in restoring the wellness and beauty of people. New kinds of health tours that are gaining popularity

are spa tours. Spas offer the unique advantages of taking the best from the West and the East, combining them with the indigenous system and offering best of the two worlds. For example Swedish massages work well with the Javanese Mandy, lulur, aromatherapy, reflexology and traditional ayurvedic procedures.

Now various spa products are being combined with yoga, meditation, and pranayama, giving a holistic experience to tourists. Spa treatments are now combined with other medical treatments to treat blood pressure, insomnia, depression, paralysis and some other diseases. People are now travelling to spas and clinics for curative baths and medical treatment. In some countries like Italy, Austria and Germany, great importance is given to spa treatments. In Russia along the Black Sea coast and in the foothills of the Caucasus Mountains, there are many world famous sanatoria where millions of Russians and international tourists throng every year.

Beach tourism is very popular among the tourists today. Tourists of all age groups, backgrounds, cultures and countries enjoy this tourism product. Besides attraction and saleability, beach holidaying has lead to overall development of tourism in many parts of the world. The basic importance of beaches is that they provide aesthetic and environmental value of the beach such as beautiful natural scenery with golden sands, lush green vegetation and bright blue sky. The water should be clear, free of currents and underwater rocks.

Beach tourism activities include water and land resource use. The water usage involves swimming, surfing, sailing, wind surfing, water scootering, Para-sailing, motorboat rides, etc. The land use has multi facets like sunbathing, recreational areas for tourists (parks, playgrounds, clubs, theatre, amusement parks, casinos, cultural museums, etc.), accommodation facilities (hotels, cottages, villas, camping sites, etc.), car and bus parking areas, entertainment and shopping complexes, access roads and transportation network. Due to its multidimensional requirements the beach product needs special care. A beach resort needs to be developed as an integrated complex to function as a self-contained community. Environmental management should also ensure the availability of necessary infrastructure in the immediate hinterland to the coastal region in support of the development on the coast to maintain its ecosystem.

Islands abound with natural beauty, with the rare flora and fauna and tribes. This makes islands an ideal place for adventure, nature and culture lovers to visit. This tourist product has great scope as these islands are being developed as tourist paradises. For example, Hawaii, Maldives, Mauritius, Tahiti, Andaman and Nicobar Islands, etc. has developed with tourism activity over the past few decades.

The topography is generally undulating and they offer natural scenic beauty with exotic flora and fauna. Most of these islands have places of worship like churches, temples, etc. As an added attraction some of these islands have developed as tax havens thereby encouraging commercial development of these economies. They offer social and cultural attractions as tourists can experience the local lifestyle, local food, fairs and festivals, etc. Scenic attractions, like good weather, are very important factors in the development of tourism.

Breath-taking mountain scenery and the coastal stretches exert a strong fascination on the tourist the magnificent mountain ranges provide an atmosphere of peace and tranquillity. Tourists visiting the northern slopes of the Alps in Switzerland and Austria and the southern slopes in Italy and also the Himalayan slopes of India and Nepal for the first time, cannot but be charmed by their physical magnificence.

Man-made tourism products

Man- made tourism products are created by man for pleasure, leisure or business. Man- made tourism products include:

a) Culture:

- Sites and areas of archaeological interest;
- Historical buildings and monuments;
- Places of historical significance;
- Museums and art galleries;
- Political and educational institutions;
- Religious institutions.

Cultural tourism is based on the mosaic of places, traditions, art forms, celebrations and experiences that portray the nation and its people, reflecting the diversity and character of a country. Garrison Keillor, in an address to the 1995 White House Conference on Travel & Tourism, best described cultural tourism by saying, "We need to think about cultural tourism because really there is no other kind of tourism. People don't come to America for our airports, people don't come to America for our hotels, or the recreation facilities. They come for our culture: high culture, low culture, middle culture, right, left, real or imagined -they come here to see America."

Two significant travel trends will dominate the tourism market in the next decade:

- mass marketing is giving way to one-to-one marketing with travel being tailored to the interests of the individual consumer;
- a growing number of visitors are becoming special interest travellers who rank the arts, heritage and/or other cultural activities as one of the top five reasons for travelling.

The combination of these two trends is being fuelled by technology, through the proliferation of online services and tools, making it easier for the traveller to choose destinations and customize their itineraries based on their interests. Today we can witness large masses of people travelling to foreign countries to become acquainted with the usages and customs, to visit the museums and to admire works of art.

One way of hastening the beneficial effects resulting from tourism is to bring the cultural heritage into the economic circuit, thus justifying the investments made at the cost of the national community, for its preservation. Taking an economic view of the cultural heritage of a nation may not altogether be justified, considering that the preservation of its culture is one of the basic responsibilities of any community. But considering the financial obstacles especially for the developing countries, this may appear to be a rational approach. Hence mass tourism can contribute unique benefits to the exploiting of the cultural heritage of a nation and can serve indirectly to improve the individual cultural levels of both citizens and travellers.

Cultural resources have another specific characteristic, which many tourists want to experience the exotic. There will be a great urge on the part of the tourist to visit and become acquainted with the ancient civilization in their quest for novel human knowledge.

Culture means the prospect of contact with other civilizations, their original and varied customs and tradition with their distinct characteristics. This entire process creates a powerful motivator towards travel. Various Museums also attract tourists like Madame Tussauds Museum in London, the Louvre Museum in Paris, Smithsonian Washington Museum, Museums of famous painters like Salvador Dali, Pablo Picasso, Natural History Museum, British Museum, Museum of Modern Art are also popular tourist products; sites of archaeological interest, such as remains of Mohenjodaro and Harrapan civilizations, museums for fossils and dinosaurs, sites for historical interest such as city of Hiroshima and Nagasaki, sites of holocaust in Germany, tombs of various leaders and emperors. Historical buildings like Warwick

Castle, Tower of London, Stratford-on-Avon which is Shakespeare's birthplace, the Roman Baths are all popular with tourists. Even historical cities like Varanasi in India get a lot of tourists due to its status as one of the oldest cities of the world. Stonehenge in United Kingdom, The White House, Buckingham Palace and other places of political significance, are also great tourist draws.

b) Traditions:

- pilgrimages;
- fairs and festivals;
- arts and handicrafts;
- dance;
- music;
- folklore;
- native life and customs.

A pilgrimage is a term primarily used for a journey or a search of great moral significance. Sometimes, it is a journey to a sacred place or shrine of importance to a person's beliefs and faith. Members of every religion participate in pilgrimages. A person who makes such a journey is called a pilgrim. Secular and civic pilgrimages are also practiced, without regard for religion but rather of importance to a particular society. For example, many people throughout the world travel to the City of Washington in the United States for a pilgrimage to see the Declaration of Independence and the Constitution of the United States. British people often make pilgrimages to London to witness the public appearances of the monarch of the United Kingdom. A large number of people have been making pilgrimages to sacred religious places or holy places. This practice is widespread in many parts of the world. In the Christian world, for instance, a visit to Jerusalem or the Vatican is considered auspicious. Among Muslims, a pilgrimage to Mecca is considered a great act of faith. In India there are many pilgrimage centres and holy places belonging to all major religions of the world. India is among the richest countries in the world as far as the field of art and craft is concerned. Tourists like to visit and see the creative and artistic treasures of various countries.

Every country has certain traditional arts like soap sculptures and batik of Thailand; gems and jewellery, tie and dye works, wood and marble carving in Indonesia; ivory, glasswork, hand block printing, sandalwood, inlay work; are some of the examples of traditional art that attract tourists.

There are many forms of dance in the world like Salsa, Hip- Hop, Jazz, Flamingo, Ballet and Traditional Dances. People who travel like to watch these dance performances and sometimes even take some introductory classes.

Music can be either traditional or modern. Traditional music like folk music and classical and country music is specific to every region and country. Modern forms include Blues, Rock, Pop, Jazz, Rap, Techno and Hip- Hop. Music also adds to the attraction of a destination. Fairs and Festivals capture the fun loving side and bring out the joyous celebrations of the community. Festivals like Christmas, Easter, Thanksgiving, Eid, Ramadan, Diwali, and Holi and so on, also bring people to destinations where the celebration can be enjoyed. Some popular Fairs which cater to fun and work are Pushkar Mela in Rajasthan, Prêt fair in Paris, Magic Fair in Vegas for garments, Hong Kong Fashion Week and various job fairs where people are recruited.

c) Entertainment:

- amusement and recreation parks;
- sporting events;
- Zoos and oceanariums;
- cinemas and theatre;
- night life;
- cuisine.

Tourist products that have entertainment as their main characteristic are many. Just to name a few there are amusement and recreational parks like Disneyworld in United States, Hong Kong, Paris, Singapore and theme parks in various countries and cities like Appu Ghar and Fun and Food Village in Delhi, Essel World in Mumbai and so on. Tourists may come to attend sports events and it is also an opportunity to explore the country.

The fundamental concept is that all tourist activities have an influence on providing economic benefits and have a powerful influence in some definite locality, like the Olympics in Athens has given immense benefit to all in tourism business in Athens in particular and Greece in general.

Many countries organise year round sports events like swimming meets, athletic meets, weight lifting events, cricket matches, baseball and Night Life is one of the prime attractions in a holiday. Tourists like to especially visit areas in cities where the night life activity is promoted. These areas are usually lit up with street stalls like flea markets and food areas. Bars, night clubs, casinos and very often open air bands attract and add to the psychological satisfaction and experience of tourists.

Cuisine is very often an understated but highly important part of any holiday. Now-a-days there is cuisine from all areas of the world which is found at most tourist destinations. Specialty restaurants serve Indian, Continental, Chinese, Italian,

Japanese, Thai, Indonesian, Fast food, Mexican, Mediterranean, and Arabic and so on. However, tourists usually like to eat the local food of the areas they visit.

d) Business:

- conventions;
- conferences.

People who travel in relation to their work come under the category of business tourism. However, such travel for business purposes is also linked to tourist's activity, as visiting places of tourist attraction at the destination, sight seeing and excursion trips. Business travel is also related to what is termed today as convention business, which is a rapidly growing industry in hospitality and tourism.

A business traveller is important to the tourism industry as it involves the usage of all the components of tourism. He travels because of different business reasons- attending conventions and conferences, meetings, workshops etc. Participants have a lot of leisure time at their disposal. The conference organisers make this leisure time very rewarding for participants by organising many activities for their pleasure and relaxation. The spouses and families accompanying the participants are also well looked after by the organisers. The organisers plan sight seeing tours and shopping tours for the participants and their families

Conferences are events which require meticulous planning and:

- efficient implementation, co-coordinating various activities so that the right things happen at the right time. There are a number of players in the
- convention business. On one hand are the customers or the consumers and on the other hand are the principle suppliers like hotels, transporters, convention
- centres, tour operators and travel agencies, tourism departments, exhibition organisers, sponsors etc.

Some tourism products do not fall into the above categories. Wildlife sanctuary, Marine parks, Aero products and Water sports, Flower festivals are the example of tourism products which are a blending of nature and man.

Nature has provided the resource and man has converted them into a tourism product by managing them. National parks for example, are left in their natural state of beauty as far as possible, but still need to be managed, through provision of access, parking facilities, limited accommodation, litter bins etc.

Yet the core attraction is still nature in this category of product. These products are symbiosis of nature and man. In case of adventure sports tourists can be participants. The basic element of adventure is the satisfaction of having complete command over one's body, a sense of risk in the process, an awareness of beauty and the exploration of the unknown. Adventure tourism can be classified into aerial, water based and land based.

Aerial adventure sports include the following activities:

a) Parachuting, which involves jumping off from an aircraft or balloon and descending by means of a parachute. The infrastructure required, includes an aircraft, parachutes and large landing zones.
b) Sky Diving, which involves a sky diver jumping off an aircraft or balloon at a much greater height without deploying his parachute initially and opening it after some interval at a pre determined height.
c) Hang Gliding, which involves running off a mountain or being towed by a winch and essentially flying like a glider where the directional control is achieved by a shift in his own weight by the pilot.
d) Para Gliding, is the latest aero-sport which has taken the world by storm. A Para Glider is a specially designed square parachute, along with a harness attached by lines.
e) Para Sailing is a simple sport that involves towing a parachutist to a height of a few hundred feet in the air and then descending by means of a parachute. As a year round activity, Para sailing can be done on land and water.
f) Bungee Jumping, which requires no equipment except a 'bungee cord' made of nylon fibre of enough elasticity to be able to absorb the shock at the end of the jump. The jumper makes a headlong jump into empty space and the resultant rush of adrenalin makes the experience very exhilarating.
g) Ballooning, where a balloon is attached to a basket by steel wire ropes. By regulating hot and cold air, the pilot can steer the balloon along any charted course.

Water based adventure sports include the following:

a) White water rafting which is one of the most important and exciting water sports, which involves riding down water rapids in an inflatable raft which is used to negotiate fast flowing rivers.
b) Canoeing and Kayaking are adventure sports which begin upstream where the water is wild and white. The gradient best suited for canoeing is the stage near the river's entry into the plains where the trip can be combined

with a natural holiday in a forest. Kayaking is appealing as it enables innovation on the river by one or two oarsman seated in tandem.

c) Adventure sports in the waters of the sea like wind surfing, scuba diving, snorkelling, yachting, water skiing, etc. also offer thrilling activities to the tourists.

Land based adventure tourist products include the following:

a) Rock climbing which originated as a means of practicing techniques for ascending high mountains. It was earlier provided as training to mountaineers but has now evolved into a highly developed sport. The climber moves up, using knowledge of rope handling, climbing, securing one to another, etc. Very sophisticated techniques and equipments are used nowadays to ascend or descend on very steep terrain.
b) Mountaineering requires trained physical ability and suitable equipment. The higher peaks need better equipment which is also costly. The challenges which mountains like the Indian Himalayas pose attract mountaineers from various countries.
c) Trekking the mighty Himalayas which spread across five Indian states form a sweeping arc and compress in its expanse a wide geographical variety and contrasting cultures.
d) Skiing is the practice of sliding over snow on runners, called skis, attached to each foot. There are three types of ski resorts, the first are large towns, second type are alpine villages and the third resorts built for skiing.
e) Heli skiing is a type of alpine skiing where the skier is dropped to the top of a mountain by a helicopter and then he slides down on his own.
f) Motor Rally is a sport that tests the navigational skills of man and his endurance with the machine. Motor rallies, grand prix racing, hill climbing rallies, vintage car rallies, sports car racing, etc. are some forms of this tourism product.
g) Safaris were earlier taken on camel, horse and elephants as an excursion for hunting or a journey. As a modern tourist product now safaris are taken on jeeps and in the form of caravans. Viewing and enjoying nature, meeting the local villagers, seeing their traditions, customs and lifestyle, entertainment and camp fires are some of the characteristics of modern safaris. E.g. Egypt desert safaris. Horse and elephant safaris are arranged in most of the national parks and wildlife sanctuaries.

Where an event is an attraction, it is as an event based tourist product. Events attract tourists as spectators and also as participants in the events, sometimes for both. The October festival organised in Germany, Dubai and Singapore shopping festivals, the camel polo at Jaisalmer, Kite flying in Ahmedabad attracts tourists,

both as spectators and participants. Whereas in case of the Snake Boat race of Kerala can be enjoyed witnessing it. Event attractions are temporary, and are often mounted in order to increase the number of tourists to a particular destination. Some events have a short time scale, such as the Republic Day Parade, others may last for many days, for example Khajuraho Dance Festival or even months like the Kumbh Mela. A destination which may have little to commend it to the tourist can nevertheless succeed in drawing tourists by mounting an event such as an unusual exhibition.

When an attraction is a place or site then it is called a site based tourist product. Site attractions are permanent by nature, for example Taj Mahal, The Great Wall of China, The Grand Canyon in Arizona, Eiffel Tower, Statue of Liberty, Temples of Khajuraho, etc. A site destination can extend its season by mounting an off season event or festival.

A large number of tourists are attracted every year by the great drawing power of Stratford on Avon in England because of its association with Shakespeare, the city of Agra in India with its famous Taj Mahal, Pisa in Italy for its famous Leaning Tower.

Some new features have been added to the same product to keep the tourist interest alive in the products. For example now visitors can see Taj by night, music shows have been organised with Taj as the backdrop so that there are repeat tourists.

Other tourism products

Health Tourism

Holidaying is generally considered as an investment in health, a subject that presents opportunities of cost- benefit analysis. The medical expertise of various countries has added a new product to the existing tourism products. People are travelling to various countries for treatment of various ailments and medical procedures like Cardio care, Bone Marrow Transplant, Dialysis and Kidney transplant, Neuro surgery, Joint Replacement Surgery, Urology, Osteoporosis, and numerous other diseases. Even cosmetic surgery, alternative medicines like homeopathy, acupressure, ayurvedic medicines and naturopathy are also becoming tourism products wherein travel companies are offering Yoga and Rejuvenation packages. Tourists travel for what is illegal in one's own country, e.g. abortion, euthanasia; for instance, euthanasia for non-citizens is provided by Dignitas in Switzerland. Tourists travel also for advanced care that is not available in one's own country, in the case that there are long waiting lists in one's own country or for use of free or cheap health care organisations.

Eco-tourism

The tourism combines local economic development, protection of the quality of the environment and the promotion of the natural advantages and the history of an area. The combination of all or some of the above mentioned kinds of tourism could contribute significantly to the development of tourism in any country.

The availability of tourist packages involving gastronomy, entertainment and information about the cultural wealth of a country should be regarded as a priority issue for tourist agents, as it will reduce the concentration of tourist activity in certain areas and will improve and enrich the tourist.

Rural Tourism

Any form of tourism that showcases the rural life, art, culture and heritage at rural locations, thereby, benefiting the local community economically and socially as well as enabling interaction between the tourists and the locals for a more enriching tourism experience an be termed as rural tourism. It is multifaceted and may entail farm/agricultural tourism, cultural tourism, nature tourism, adventure tourism, and eco-tourism. The stresses of urban lifestyles have lead to this counter-urbanisation approach to tourism. There are various factors that have lead to this changing trend towards rural tourism like increasing levels of awareness, growing interest in heritage and culture and improved accessibility and environmental consciousness, Tourists like to visit villages to experience and live a relaxed and healthy lifestyle.

Ethnic Tourism

Ethnic tourism is travelling for the purpose of observing the cultural expressions of lifestyles of truly exotic people. Such tourism is exemplified by travel to Panama to study the San Blas Indians or to India to observe the isolated hill tribes of Assam. Typical destination activities would include visits to native homes, attending traditional ceremonies and dances, and possibly participating in religious rituals.

Senior Citizen Tourism

A newly emerging trend in tourism, basically for senior citizens or old people who live in isolation, especially in the west, because of daily busy schedules of their children and more importantly the attitudes. The characteristic feature of this type of tourism is that the senior people are less demanding in the form of facilities

and services, besides leaving minimum impact on the destination community and their main consideration is on personalised service.

Spiritual Tourism

Many people when living under conditions of stress turn to spirituality. The Eastern world is considered to be very spiritual with many of the new age Gurus and their hermitages. This takes the form of another tourism product, that is, spiritual tourism. Tourists visit places to attend spiritual discourses and meditation workshops. For example, The Osho Foundation, Art of Living Foundation which have centres all over the world, Buddhist Monasteries and Ashrams.

Golf Tourism

Golf has been enjoyed by many for a long time. Earlier it was enjoyed as a sport but in recent times it has developed into a hot tourism product. Many tourist organizations plan promotional packages to woo the golf tourist especially from Japan where the green fees are very high. These tourists take exclusive golfing holidays wherein their accommodation is also arranged near the course and they return after serious golf playing.

REFERENCES:

1. Arnold, J., *Why rural tourism is no picnic*, BBC News, 2004;
2. Baldock, B., Beaufoy, G., 1993, *Nature Conservation and New Directions in the EC Common Agricultural Policy*, Institute for European Environmental Policy. 1993;
3. Fleischer, A., Tchetchik, A., *Does rural tourism benefit from agriculture?* Tourism Management, 2005;
4. Goosens, C., *Tourist information and pleasure motivation*, *Annals of Tourism Research*, vol. 27, no. 3, 2000;
5. Tribe, J., E*conomics of Leisure and Tourism*, Butterworth-Heinemann, London, 1999;
6. Turtureanu, A. G., *The Actual Management- from theory at mathematic tooling*, Synthesis Publishing house, Galati, 2005;
7. WTO, *Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Sustainable Development*, 1995.

ECONOMIC AND MANAGERIAL APPROACH OF HEALTH INSURANCES

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Abstract: *The paper represents an analysis in the domain of the social insurances for health care. It emphasizes the necessity and the opportunity of creating in Romania a medical service market based on the competing system. In Romania, the social insurances for health care are at their very beginning. The development of the domain of the private insurances for health care is prevented even by its legislation, due to the lack of a normative act that may regulate the management of the private insurances for health care.*

The establishment of the legislation related to the optional insurances for health care might lead to some activity norms for the companies which carry out optional insurances for health care. The change of the legislation is made in order to create normative and financial opportunities for the development of the optional medical insurances.

This change, as part of the social protection of people, will positively influence the development of the medical insurance system. The extension of the segment of the optional insurances into the medical insurance segment increases the health protection budget with the value of the financial sources which do not belong to the budgetary funds.

Keywords: Health social insurances, subsidiary principle, medical system, social security system

Jel Classification: *F - International Economics, F2 - International Factor Movements and International Business, F20 - General*

Introduction

The social insurance system became in time very complex. It is the most important economical and social system for protecting the health of people and it can say that these processes were transformed from an individual process in an organized process.

Health social insurances are obligatory and its function is to support solidarity and subsidiary principle for collecting and using the funds involved. The people who have insurance can choose medicine and the society that gave the medical services.

Social health insurance was born from necessity to protect people and for that it was necessary to create a legal frame for the organization. The existence of this frame gives the real possibility to people to product social goods and services.

In the domain of health social insurance it can be identified essential particularities that influence any way to monitor regulation and costs, such as:

- The nature of consumption and production is based on the bipolar relation between person and physician. This relation is essential for cove and society because it gives the possibility to access the consumption of goods and services;
- The request of health services is unlimited because of different values in function of patient and specific medical consumption;
- The stiffness of the request according to the price, the elasticity of requests according the offer.
- The importance of quantity argument and political-administrate decisions.
- The high level of uncertainty in health services means other essential particularities in the domain of sanitary economic medicine.

The consequence of the uncertainty in health services favours the undesirable strategic behaviour taht made in the same time difficult to introduce some mechanisms for decisions coordination:

- The uncertainty on the risk and the labour costs are at the origin of health insurance system;
- The uncertainty from the physician and the beneficiary generate the excess of settlement;
- The uncertainty may limit the concurrence on the quality that at its turn will limit the health performance services;

- The uncertainty at the origin of actual impossibility for punishing/rewarding the performances and more to evaluate health services efficacy.

Economical and social co-ordinates

In many countries the medical system through insurance supports successfully the activity of medical institutions and everyone has access to the medical services. The insurance founds are formed, usually of 3 sources: government allocations, taxes paid by patron and taxed from employments salaries.

In most modern States, the population is dissatisfied with their health systems care and it is evident that the measures that are undertaken for permanent changes and improvements; their problems are similar in most of the countries. Their content differ only by the amount of money needed to solve, with less importance on how the country spends on health - 14% or only 1% of gross domestic product.

There are two main categories of economic problems faced by different countries: under-investment and over-investment and better said - the irrational allocation of health resources in medicine. Since 1993, world development report stated: "Investing in the health of the World Bank have been dealt with the most common health problems affecting in particular the health systems of developing countries. In this report it was found that health is an irrevocable condition for economic growth and that the allocation of limited resources for costly services and relatively unproductive expenditure, such as for the armed forces, that prevent countries to meet basic health needs of the population.

At present, we can track the formation of a new system of organization of medicine by insurance - the European Community. Integrating current process requires the integration and reform of social programs in the states. The model that develops, it provides a unique concept of social policy in all states. Dominant idea of this concept is that the control of the state not only affects economic development, but also the social one. This postulated lead to the revision of the state's role in the social sphere, particularly in countries where this role is traditionally strong. It performs social diversion programs from their universality at the individual level, which leads to reducing costs and increasing efficiency, because aid is more individualized and effective for those who really need it.

Resources of all companies are limited. Rational use of them requires the establishment of priority areas. This choice reflects the attitude of the political power towards health and must be based on objective evaluation of costs and benefits of the available options. Using financial and human resources, all are linked to a

particular health program, which is designed to produce health benefits or utilities. Health benefits can be expressed directly by reducing morbidity and mortality or by increasing labour productivity and quality of life.

Models in health systems

In past years, there are discussed in the increasingly need to establish a regulatory framework for private health insurance. The arguments that this action causes, concern especially better meet the public/individual interest, improve the quality of medical act.

When discussing the choice of a health-care system it must take into account the role of the state, through various levels or bodies. A uniform system, operated entirely by the state or fully privatized, does not exist. There are liberal health systems (United States), nationalized systems and systems to date.

Basically, depending on funding sources and historical traditions in the field of health policies, three types of systems coexist:

- the social security system for health premiums based on compulsory insurance, dependent on income and not the health of the insured;
- national health system, financed by taxes;
- voluntary insurance system, typical private health market, private financing, insurance premiums are correlated with the risk policyholders.

What it seems to us very important is that no country finances its health services exclusively through a single mechanism, but only one of the following mechanisms is predominantly at a time: from the public budget, based on levied taxes, social health insurance, private health insurance, and direct payment services to patients.

For example, the financing of the Austrian health system based on private insurance at the rate of 7.5%, Ireland has, since 1994, a well-defined legal framework on private health insurance, the profile is based in Holland and the social security health insurance and private one, but it has a share of 31%, compared to only 3% in Sweden, also in France, the whole system is the result of a complex combination between the public sector and the private one; the UK, system is characterized by universal population having access to medical assistance, an organizational structure that governs the access to specialist and a majority of the funding state taxes, along with the operating system and the private one, profit-oriented, in an assurance plan, and the health benefits.

Health care systems in Europe are seen in three models:

1. national health service (SNS) model - type Beveridge;
2. social security system for health model (SAS) - Bismark type;
3. the centralized model of the state (SCS) - Semaşko type.

They are added to the model that works in the U.S. and is based on private insurance. The model of National Health Service operates in Denmark, Finland, Iceland, Norway, Sweden, Greece, Italy, Portugal, Spain and England. The system is a source of financing general charges, and it is controlled by the government which has a budget and a private sector.

The centralized model of the state is passing in Albania and Bulgaria. The system is financed from the state budget; the state has the monopoly of health services. Countries such as the United Kingdom, the Netherlands, and Germany brought and it will always bring improvements to existing systems without replacing them.

Comparative aspects of social health insurance in the European context

In Romania, social health insurance is still at the last top. The development area for private health insurance is hindered even in the legislative field, practically there is no legislation at this time to govern the management of private health insurance, insurance that would be voluntary and, therefore, the additional requirements established by the Government Emergency nr.150/2002, which provides and regulates the social security health system as a public binding.

Romanian Reform health should not import weaknesses and dysfunction of other systems. It requires monitoring projects' directories from the social insurance for health, especially those on decentralization, the contractual and independent medical practice. It becomes the appropriate criteria for selecting competent and moral managers, developing the medical and health management, conducting the dialogue between the partners involved in the medical-health and others.

Additional health insurance are the result of signing a contract between the insured person and an insurance company, covering the difference between the cost of medical services offered through social insurance and health charges by service providers in the field. The insurance company must specify all the conditions in the policy-related insurance schemes, all medical institutions, medical staff or the public and private nurses will provide the insured person the rights provided by the policy.

One of the main features of voluntary health insurance (MPA) is the dependence of the guarantees provision of the medical services in appropriate volume and quality over the value of premiums paid. The level of performance guarantees a complex package and sufficient quality of medical services that depend on the cost of the purchased policy.

In the case of mandatory medical insurance (AMO), this relationship does not exist. The volume and quality of medical services to the insured person does not depend on the financial benefits of its insurance funds. This is the most important difference between the MPA and AMO.

Table 1

Fundamental distinctions between the AMO and MPA

Nr.	**The awards**	**Insurance**	**Voluntary insurance**
1.	Legislative	By the effect of the law	Through the voluntary law
2.	Coverage	Population majority	Individual solvent layer
3.	Status	Part of the social protection system	Commercial activity
	Motivation	Defending the social interests of citizens, state and employer	Defending the citizens and state's social interests
4.	Authorizing finances	Multi-state insurance company, non-profit	Commercial insurance company
5.	The volume of services	It is set annually by the Government and is limited by the Single Package	Conditions and insurance programs are developed by insurance companies and the volume is limited by the amount of insurance
6.	The financial acquittal	Current funding needs other policyholders	Deferred financing individual needs
7.	The coverage	Universal for all	It is done individually, or family group
8:	Equivalence	For all population	Only for similar groups
9.	Insurers	Employers, employees and state	Natural or legal persons
10.	Tariffs	Shall be regulated by law	It is established contractual

11.	It is established contractual	Sources unused in the current year is used to increase the volume Single Package	Revenues are owned insurance company
12.	Prices of medical services	Shall be determined by the Government	It is sold

In European Union countries distinguish the following types of voluntary health insurance:

Private insurance-type **complement** (Austria, Belgium, Ireland, Spain, Italy, etc.) supports total or partial payment services excluded from the basic package, including co-payments as appropriate.

Private insurance type **additional** support, in whole or in part, paying for services that exceed the package of basic services in the social health insurance system, provision of a comfort level, fast access to medical services where waiting lists, special medical services abroad and other services.

Private insurance type **substitute** full or partial payment for any services, including those provided.

It is stressed that the border between additional and complementary is not always well defined.

AFS market presence depends on 3 conditions:

1. Demand positive (some people are outside risk)
2. The presence in the medical and health services medical fee
3. The possibility of granting technical insurance services.

Private health insurance is an operation whereby the insurer, on the mutual principle, an insurance fund contributing a number of policyholders exposed to certain risks and produce them and pay those that resort to the use of additional package of medical services on behalf of the fund composed of collected premiums and other revenue on account resulting from the activities.

Assurer takes a number of risks expenses that occur as a result of inefficient use of methods of treatment, loss of body function or a body part that decrease the ability of employment, death. All have a financial expression and placed under the grading of risks that can be taken in insurance.

In this way, the object of the AFS may be:

- Medical services are not included in the unique program.
- Providing medical services through alternative technologies (high technologies, costly) over the unique medical services.
- Medical Services (internment, investigations) outside the waiting lists.
- The supply the medicine of last generation.
- Comfortable conditions.

One combination of AOS and AFS:

1) AFS that complement the AOS - AFS programs include medical services over the volume of services included in AOS.

2) AFS as a partial replacement AOS - AFS programs include services that complement AOS services, and services are included in the AOS. AFS programs, which include the volume of services included in the AOS and over it. Holders of such programs are also insured for medical services provided by AOS.

3) Health insurance with multiple levels of optional insurance, with additional spending of citizens for medical services under the program AOS.

4) Health insurance with multiple levels of insurance with additional medical services in the AOS.

Today's activity in Romania, an insurer in the AFS is targeted initially for those individuals that require medical care. Regardless of the fact that most people and procure insurance policy AFS suffering from chronic diseases, they are what make us demonstrates the social aspect of the AFS.

One of the key strategies that can be applied in Romania in order work AOS and AFS is revising the volume of medical services covered by AOS for different categories of the population. It is the transfer provision of medical services in the category of medical services fee for a certain class of citizens or the introduction of co-payments, when granting medical services. Thus it would extend the field of services AFS.

Variants most often used by the MPA in Romania are:

1. MPA forms a compensation which provides insurance but does not depend on the cost of the insured person’s treatment:

- insurance in case of determining the diagnosis;
- insurance in the event of sickness as a result of suffered trauma;
- insurance in case of loss of income due to illness;
- allowances for the period of hospitalization.

2. MPA forms of which provide compensation to cover expenses for treatment:

- insurance expenses for treatment in the outpatient;
- insurance expenses for stationary treatment;
- insurance costs for surgery;
- insurance costs for treatment and postoperative care;
- providing complex medical expenses.

Conclusion

Conclusions concerning social security for health in Romania and efficiency of the health concerns three fundamental issues:

- apparently contradictory relationship between the economic and medical health system, about what may be reduced at dialogue between economists and doctors, dialogue difficult because of the relatively limited areas of their work;
- opposition of the resources allocated to medical and health, efficiency and capital investment requirements to ensure social health - increasing demand for health services in relation to the limited capacity of securing financial resources;
- existence of ethics issues, morality and vulnerability activities in health, limited procedures for the funds control allocated to health and the recognition risks and accidents event. Therapeutic (dualism interpretation of the positions of physician-economist).

Regarding the voluntary health insurance propose:

1. Finalizing the legal framework on voluntary health insurance would create certain standards of companies that provide AFS. Changing the law, in creating regulatory and financial facilities for voluntary health insurance, as part of the population social protection, it will positively influence the development of medical insurance. Expanding the share of voluntary insurance in the health insurance budget, it increases health care with the financial sources that have a different origin than the budget.

2. Quality medical services in the AFS should include more items. Evaluation of resource materials in the provision of medical services for insured AFS organization and agenda for making medical-economic expertise covers:

- Detecting flaws and arguments, medical errors and other factors that negatively affect the quality and effectiveness of medical services;
- Developing recommendations for manager's medical institutions, which aim to prevent medical terms and would contribute to raising the effectiveness of medical services;
- Assessing the potential health institution to ensure an appropriate level of medical services (in relation to market demand);
- Fairness of the application of the tariff (price) for services rendered and corresponds to the accounts presented for redemption.
- Monitoring the compliance with the contractual terms. It is necessary that every medical institution to be introduced a special service, which would include specialists in the field of studying the market, price policy, the advertisement.

With the passage of the medicine by insurance, it is necessary to form a single body control, independent, to evaluate the quality of medical services in the AOS and AFS. It is necessary to review standards of medical services and the volume of services included in the program unique, with the aim of creating conditions for insurance with several levels.

3. Application of the medical insurance in health care provides a number of changes in the management of health, relations between medical institutions and patients.

4. Medical insurance programs should be implemented in compliance with the technologies developed for serving patients, using market segmentation of medical services and calculate insurance premiums according to the most modern formula.

5. MPA must be consistent with AMO, in order not to interrupt the continuity of technological service to the patient.

6. World practice in the field of modern technologies serving patients demonstrated efficacy specialised supervising service to the patient in medical institutions. This management has positive effects not only on the quality of service, but also the financial aspect. Following the exclusion of medical services that are unnecessary or duplicated would save considerable sources. Creating a centre for routing the care granting for patients in our country currently has a vital importance.

Bibliography:

1. Berciu, I, Vlădescu, C., *Legislaţie şi reformă sanitară în perioada de tranziţie*, Bucureşti, Lumina Lex, 1999;
2. Bistriceanu, D. Gh., *Sistemul asigurărilor din România*, Bucureşti, Editura Economică, 2002;
3. Bistriceanu, D. Gh., *Asigurările sociale – necesitatea şi conţinutul lor economic*, Publicaţia Tribuna Economică, nr. 42, anul 2004;
4. Blîndu, Daniela, *Particularităţile economice în domeniul asigurărilor sociale de sănătate*, *Revista de Medicină Militară* nr. 2/2005;
5. Blîndu, Daniela, *Necesitatea şi importanţa asigurărilor sociale pentru sănătate*, *Revista de Medicină Militară* nr. 1/2005;
6. Blîndu, Daniela, *Principiile sistemului asigurărilor sociale pentru sănătate*, *Revista de Medicină Militară* nr. 3/2005;
7. Blîndu, Daniela, *Aderarea României la Uniunea Europeană este condiţionată şi de perfecţionarea asigurărilor sociale pentru sănătate*, Cotidianul *Economistul*, nr. 1801/2005;
8. Blîndu, Daniela, *Perfecţionarea asigurărilor sociale pentru sănătate în condiţiile actuale, în Uniunea Europeană,* Revista *Finanţe Bănci Asigurări* nr. 9/2005;
9. Cace, Corina, *Asigurările sociale. Management, evoluţii şi tendinţe*, Bucureşti, Editura Expert, 2004;
10. Constantinescu, D., *Tratat de asigurări*, Bucureşti, Editura Semne, 1999;
11. Adrian, Dan, Dana, Pescaru, *Sistemul de asigurări sociale, Suport de curs,* Universitatea din Bucureşti, Facultatea de Sociologie şi Asistenţă Socială, 2006;
12. Donea, Ş., *Despre tarele actualului sistem de sănătate*, Camera Federativă a Medicilor din România, Bucureşti, 1997;
13. Enăchescu, D., Vlădescu, C., *Opinia populaţiei şi a medicilor despre asistenţa medicală în România, Medicina Modernă*, Nr. 6, Bucureşti, 1999;
14. Eţco, C., Malanciuc, Iu., Idricean, V., *Avantajele asigurărilor facultative de sănătate* Materialele conferinţei Ştiinţifice Internaţionale, *Ştiinţa, Tehnica, Medicina şi Bioetica în strategia de experienţă umană: problemele de interacţiune şi interconexiune*", Chişinău CEP „Medicina", 2002;
15. Matei, L., *Management public*. Bucuresti, Editura economică, 2001;
16. Mărginean, Ioan, *Asigurările sociale*, în Zamfir E., Zamfir C. (coord.), *Politici sociale. România în context european*, Bucureşti, Edituri Alternative, 1995;
17. Mărginean, Ioan, *Tendinţe în evoluţia asigurărilor sociale din România*, în Zamfir, C. (coord.), *Politici sociale în România 1990-1998*, Bucureşti, Editura Expert, 1999;
18. Popescu, V., *Autonomie de faţadă la Casa Naţională de Asigurări de Sănătate*, Bucureşti, *Adevărul*, Nr. 4959. 17 iunie 2006;
19. Preda, Marian, *Politica socială românească între sărăcie şi globalizare*, Iaşi, Editura Polirom, 2002.

TRANSFORMATIONS OF EUROPEAN FINANCIAL INSTRUMENTS IN THE CONTEXT OF EUROPEAN ENLARGEMENT PROCESS

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Abstract: *The necessity of a regional development policy at the nowadays' European Union level has become vital since the beginning of the enlargement process in 1973 when to those six founding states (Belgium, France, Germany, Italy, Luxembourg and Netherlands) subjoined Great Britain, Ireland and Denmark. In 1957 when European Economic Community was founded, the EU-6 recorded a similar development level, the regional problems being isolated only in Southern part of Italy. Although on Italy request, the Treaty ascertained the existence of some inequities between prosperity levels of different regions, article 130 was one of the fundamental motives of creating the European Investment Bank, which may be considered one of the regional policy instruments.*

The enlargement process increased regional problems, major disparities regarding the economic development level being recorded between EU-6 regions and regions of the new member states (North part of England and North part of Ireland). Rural areas from Denmark and Ireland recorded a precarious development compared with similar areas from member states, and mining regions of Great Britain were confronted with industrial re-conversion problems. These kinds of problems existed even inside member states so that carboniferous regions Lorena (France), Ruhr (Germany), South part of Belgium were strongly affected by the deindustrialisation process. These situations led to the creation of the European Regional Development Fund in 1975 and its main objective at that moment was promoting innovation and infrastructure development in order to adjust the existing discrepancies at the Community level.

Keywords: *European Financial instruments, European Regional Development Fund, economic development.*

Jel Classification: *G - Financial Economics, G3 - Corporate Finance and Governance, G32 - Financing Policy, Financial Risk and Risk Management, Capital and Ownership Structure*

The necessity of a regional development policy at the present European Union[1] level has become vital since the beginning of the enlargement process in 1973 when to those six founding states (Belgium, France, Germany, Italy, Luxembourg and Netherlands)[2] subjoined Great Britain, Ireland and Denmark[3]. In 1957 when European Economic Community was founded, the EU-6 recorded a similar development level, regional problems being isolated only in Southern part of Italy. Although on Italy request, the Treaty ascertained the existence of some inequities between prosperity levels of different regions, article 130 was one of the fundamental motives of creating the *European Investment Bank*, which may be considered one of the regional policy instruments.

The enlargement process increased regional problems, major disparities regarding economic development level recorded between EU-6 regions and regions of the new member states (North part of England and North part of Ireland[4]). Rural areas from Denmark and Ireland recorded a precarious development comparative with similar areas from member states, and mining regions of Great Britain were confronted with industrial re-conversion problems. These kinds of problems existed even inside member states so that carboniferous regions Lorena (France), Ruhr (Germany), South part of Belgium were strongly affected by the deindustrialisation process. These situations led to the creation of the *European Regional Development Fund* [5] in 1975and its main objective at that moment was promoting innovation and infrastructure development in order to adjust the existing discrepancies at the Community level.

Regional policy became a distinctive policy on EU agenda[6] as a consequence of enlargement process from 1981 (Greece) and 1986 (Spain and Portugal) when the vast proportion of regional disparities surpassed the pre-existed situation. In this context, the size of the European Regional Development Fund

[1] Term "The European Union" governs since 1993 when the Maastricht Treaty came into force, also known by the name of "Treaty on the European Union" because it includes some aspects regarding the foundation of the European Union on three pillars: the European Community, the Judicial and Home Affairs, and the External Policy and the Common Security. Notice that the European Union does not substitute the European Community, but it includes it. The European Community is itself a composite term which defines the three European communities: the European Coal and the Steel Community founded on April 18, 1951 by Treaty of Paris, the European Atomic Energy Commission and the European Economic Community instituted by the Treaties of Rome. Accordingly with the Maastricht Treaty, the "Council of Ministry" is renamed "The Council of European Union".

[2] The six foundation countries will be identified in this paper by the EU-6 acronym.

[3] Norway rejects by referendum the EU accession.

[4] At the accession time, Ireland was the poorest country of the European Economic Community, the income per capita (at parity purchasing power) being at the half of EU-6 average.

[5] E.R.D.F. *"for redistribution of one part of the budgetary contributions of the member states towards the poorest regions of Community for the purpose of their economic development adjustment*."

[6] Signing the European Single Act in February 1986 represents the foundation of an independent social and economic cohesion policy and the beginning of preparation for the European Single Market.

increased significantly and the methods of *Structural Funds*[1] management were reconsidered. Thus, Structural Funds become to function on the basis of programmes, these ones being organised on priority fields and objectives of regional policy (especially objective 1 "development and structural adjustment of poor regions", objective 2 "assisting declining industry areas" and objective 5 b "development and structural adjustment of rural areas"). At the beginning, the performing period of these funds was established at 5 years (1989-1993), assuming as a basis the programming documents: Multi-annual Framework Programme and Operational Programmes. In sight of setting up European Single Market and transition towards the next phase of integration process – the Monetary Union – the Treaty on the European Union, it includes an engagement to achieve economic and social cohesion (Article 130 a: "The Community objective is to reduce disparities between the level of development of different regions and to reduce the lack of progress of unfavoured regions, including regional areas") and, by Article 130 d, it creates a new fund that offers financial assistance in the field of economic development through the instrumentality of projects regarding improvement of the transportation and environment infrastructure – the *Cohesion Fund*. This fund functions starting with 1993 when the Treaty on European Union came into force. For the next period (1994 -1999) the regulations of the Structural Funds and the list with eligible regions have been revised.

Germany reunification in 1990 and the accession of Austria, Finland and Sweden in 1995[2], in the middle of a performing period, changed the pattern of regional disparities distribution and revealed the necessity of a new financial instrument – *Financial Instrument for Fisheries Guidance* (1994) as well as of the objective 6: "adjustment and promoting structural development of slack populate regions".

The late round of the European Union enlargement had the most pronounced impact over the regional disparities pattern. The accession of ten states (Czech Republic, Estonia, Latvia, Lithuania, Poland, Slovakia, Slovene, Hungary, Cyprus and Malta) on May 1st 2004 transformed European Union in a heterogeneous group of countries within the interregional disequilibria being significant. European Union financial package for the current performing period (2000-2006) was established in 1999 by the European Council in Berlin through the action plan: "Agenda 2000". Regarding the enlargement process, this document re-confirmed the revised Phare[3] programme as being the main programme of community aid for central and Eastern European countries and introduced other two pre-accession instruments: Instrument

[1] On 1988, European Council in Brussels decided that European funds: European Social Fund (1958), European Agricultural Guidance and Guarantee Fund (1962) and European Regional Development Fund (1975) receive the name of Structural Funds.

[2] Norwegian citizens reject again by referendum the accession into EU.

[3] The acronym of Poland Hungary Aid for Reconstruction of the Economy

for Structural Policies for Pre-Accession[1] and Special Pre-Accession Programme for Agriculture and Rural Development[2], and decided to double the financial aid beginning with 2000 year. Total allowance for the current performing period is reproduced in the following table.

The largest extension of the European Union history represents a big challenge in achieving the strategic objective settled at the European Council from Lisbon, that is to transform European Union in "the most competitive and dynamic knowledge based economy in the world, able to provide the rise in the living standards of its people, with more and better jobs and a better social cohesion". The acute problems for this moment refer to: challenges related to competitiveness, sustainable and economic and social restructures of the less developed regions, keeping on with the convergence process of those regions that affected by enlargement process became ineligible under objective 1 due to statistical effect of GDP per capita, together with the achievement of economic and social cohesion on the entire territory.

Table no.1 Pre-accession financial assistance

Million euro	2000	2001	2002	2003	2004	2005	2006
Phare	1560	1560	1560	1560	1560	1560	1560
I.S.P.A.	520	520	520	520	520	520	520
S.A.P.A.R.D.	1040	1040	1040	1040	1040	1040	1040
Total	3120	3120	3120	3120	3120	3120	3120

In sight of accession of Romania and Bulgaria in 2007 or 2008[3], the financial assistance of the European Union towards Romania through the instrumentality of pre-accession funds is around three millions Euro for 2005 and 2006. Starting with first year of accession (2007) Romania will benefit by structural funds and by a special financial instrument for agriculture sector, the total allowance being around 1.4 billion Euro in 2007, 2 billion Euro in 2008 and about 2.6 billion Euro (4% of GDP – maximum received by European Union) in 2009.

The conclusion is that Structural Funds represents the fundamental mechanism of European Union in achieving economic and social cohesion and the process of becoming a member of the European family always coincides with the adjustment and revisions of Structural Funds regulation in order to make them more flexible for facing the new challenges caused by the enlargement process.

[1] I.S.P.A.
[2] S.A.P.A.R.D.
[3] depending on chastising the safeguarding clause

THE QUALITY COSTS

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***Abstract**: Quality has a cost and this fact cannot be denied. In the same time, it is true that non-quality is more expensive. Quality is considered as being expensive because no one tries to calculate non-quality costs. Out of the final cost of a product, non-quality stands for 20% up to 35%. According to this idea all the economic sectors contain error costs caused by the mistakes made during the production process. To have a real consummation situation, it is necessary to know the cost quantum. The final quality cost is the result of the following costs: prevention costs, necessary to preclude errors; evaluation costs, as results of a final product evaluation, and failure costs, generated by the non – attainment of product's purpose. The gross of these costs stand for the total quality costs. Nowadays, the problem inheres in how much this quality cost represents out of the final cost.*

Keywords: *Total Quality Management, quality cost, prevention costs*
Jel Classification: *F - International Economics, F2 - International Factor Movements and International Business, F20 - General*

Introduction

It takes time and money to measure quality through a system of indicators, so as the study of a process and its redesigning, in order to be more effective. But non-quality is more expensive. The quality is considered as expensive due to not measuring the price of the non-quality. To understand its real cost, we will start by defining the term producer of errors. This phrase refers to all means and efforts used in an organization, but that does not bring any value-added to its activity, that represents consequently a cost. Some of its consequences are: the doubling processes, repeating the work, correcting errors, storing non-necessary surpluses.

The cost of the poor quality in administrative sectors implies costs increasing from 20 to 35% for these departments. This is an estimate digit; it may vary, depending on the organization sector, and even from one organization to another within the same sector.

In the 70's the cost of the poor quality was mainly used to measure the manufacturer costs. Lately it was concluded that in all departments, processes and activities, costs occur, because things were not properly done in due time.

We will not develop the idea according to which the quality would be free, but if we make a comparison between its cost and the cost of poor quality, is more economical and profitable to work in accordance with the excellence principles.

Categories of costs relating to quality

The cost calculation is necessary to the management in order to register the actual consumption of goods and services. The costs, that represent the efficiency measurement, should allow finding the irregularities on the model or on the proposed target prices.

A system costs does not record the smallest deviations because, by registering them, it may happen that the application of such system to be more expensive than the savings that would be achieved by implementing the measures. There is an attempt to keep under observation those options or consumptions that presumably influence more the effective use of resources.

The costs system properly conceived will try to determine the consumption of those activities which are estimated to require a special attention, without which it would reach to situations detached from the reality of the organization. On the other hand, it is necessary to take into account the planned costs and not the historical costs, because the historic cost allows only the achieved corrections after the events took place, and the planned cost allows the anticipation of the events.

Managers' decisions incline towards using resources, based on two major directions:

- The use of significant resources so that a decision may influence more the efficiency;
- The opportunities to which the organization renounces by using resources with a determined finality.

These are the criteria that guide the definition and the classification of so-called quality costs. The quality costs and the non-quality cost refer to those activities which affect the quality of the product or service. It is important to point out that the enterprise's organization and culture influence a lot the cost. The Total Quality Management requires reducing the costs as a result of the management system, as we will reveal below. So, speaking about the quality costs means grouping costs with quality orientation.

There are four types of costs associated to quality and non-quality, as follows:

- Prevention costs: the costs of preventing activities for errors occurrence or differently said, the costs of all those activities that try to eliminate in advance the causes that may lead to lack of quality.
- The evaluation costs: it is the result after evaluating the finished product or service after it was performed, or it represents everything that was spent on in order to see if the outcome of a process corresponds to the standards, if it is according to the specified quality.

- The failure costs: they are the ones that are derived from the unaccomplished products or services, whether final or intermediary, costs of all or some requirements that are adapted for customers' use.

The failure costs are classified into two major groups:

- Costs for internal failures - are those costs involving the organization, as a result of errors committed during the processes and the activities, and they are detected before the product or service is reaching to the public.
- Failure for external costs - they are associated with defects that are found after the product or service was transmitted to the client. These costs would have disappeared if there was not a defect product.

The amount of all costs above represents the total quality costs. These costs, if they are added to those materials, must correlate to the organization total cost.

The quality costs are applied to almost any activity performed by the organization.

All functional sectors of an organization provide different services or products to other different functional sections, this way creating a client-supplier chain, which is taken into account in the total quality management.

After analyzing the objectives at a functional level, then it can be determined which products and services are available to other sectors and which are the requirements concerning them. This is the way to determine the basis for defining the preventive and evaluation activities, and the elements that characterize the class of internal cost and the external defects in relation to the final products and services.

In the process of carrying out their functional activities, most of those departments deal with the actions related to product development cycle phases or the product's commercial development cycle. So, the assurance quality costs appear in every stage of the product's commercial development cycle so as at every operational level of the organization. The controllable costs of the organization are the only items that must be included, and they may also include any granted bonus, only if they can be declared as separate cost items from their classes.

At the same time the apparently controllable costs should be eliminated, which are exclusively supported as a result of a contractual stipulation.

The reaction of the quality costs

The prevention makes the evaluation activities to be less necessary because they are fewer errors to detect. Given this, it seems obvious that the priority is the prevention investment, which implies to act in the product and service design and to remove the cause of failures. The raised issue is if there is a limit when investing in quality costs. It will be the situation in which the quality costs will not compensate the savings that presupposes the reducing errors. The costs due to failures can be reduced to minimum or to zero, only if the prevention and evaluation costs rise greatly, in theory, up to infinite. On the other hand, the failure costs should be zero for 100% from the production or services units and it would increase once the percentage of defects increases.

The total quality cost appears as the amount of the prevention evaluation and failure costs, with a minimum of two asymptotic divisions.

Nowadays it is considered that the situation may not be as extreme as presented in figure 1, although it seems obvious that the improvement and prevention process of the new quality deficiencies represents the subjects for costs improvement. Informatics applications and other technologies have allowed considerable reductions of failures number, though others may appear in their place.

Figure 1 shows that the total quality costs have a determined value in proportion of 100% of the quality compliance. It is maintained the contrary growth in the failure cost and the evaluation and prevention costs. It considers that it is possible to reach a 100% percentage in compliance with certain minimum total costs, that a finite value of the prevention and evaluation costs may make place for a zero value of failure cost.

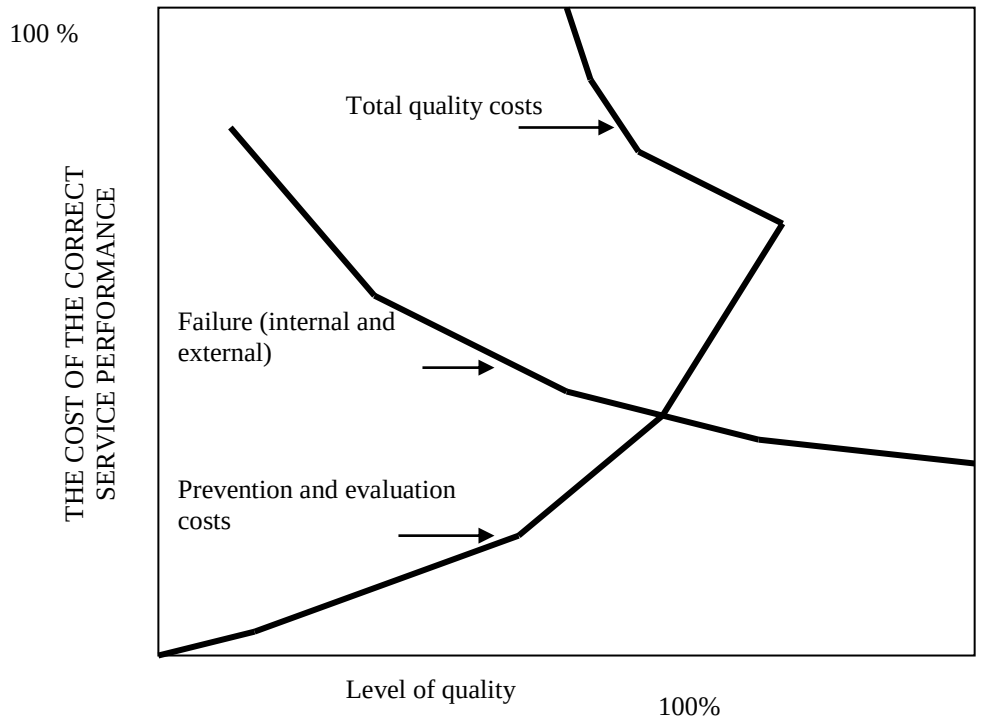

Fig.1 The reaction of the quality costs

Bibliography:

1. Nicolescu, O., Verboncu, I., *Metodologii Manageriale,* Bucureşti, Editura Tribuna Economică, 2002;
2. Russu, C., *Management Strategic,* Bucureşti, Editura All Beck, 2000.

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- În cazul în care **limba de publicare** a revistei este limba română (se impune respectarea normelor gramaticale ale Academiei Române, scrierea cu **â** şi **sunt,** utilizarea diacriticelor), iar dacă se optează pentru un articol într-una din limbile de circulaţie internaţională (engleză, franceză, germană etc.) este necesară folosirea accentelor, ortografiei şi punctuaţiei specifice limbilor străine respective.

- Pagina de început trebuie să conţină titlul complet al lucrării, numele şi afilierea autorului/autorilor, pregătirea profesională a acestora, postul ocupat, poziţia curentă.

- **Titlul lucrării** (dimensiune 12, **bold**) va fi redactat cu majuscule şi va fi aliniat pe centrul paginii, urmând ca **numele autorului/autorilor** (dimensiune 12, **bold**) sa fie aliniat/e în partea dreaptă, sub titlu.

- Fiecare articol (cu excepţia recenziilor) trebuie să fie precedat de un **rezumat** (Times New Roman, dimensiune 12, *italic*) de circa 10-15 rânduri, tradus în alte două limbi decât limba textului în care a fost redactat articolul. Acesta va ajuta cititorii să îşi formeze o imagine cuprinzătoare a principalelor probleme analizate în studiu şi implicaţiile acestora, independent de lecturarea întregului articol. Scopul acestuia este de a ajuta cititorii din diferite ţări şi cu experienţe culturale diferite să urmărească uşor principalele probleme analizate în lucrare. În cadrul rezumatului nu vor fi citate alte materiale publicate.

- Fiecare rezumat trebuie însoţit de 3-5 **cuvinte cheie** (Times New Roman, dimensiune 12, *italic*) în limba redactării rezumatelor.

- Toate **notele**, scrise tot cu Times New Roman, dar cu dimensiune 10, vor fi introduse obligatoriu la subsolul paginii, cu observaţia ca numerotarea lor să înceapă de la 1 pentru fiecare pagină.

- În sistemul clasic de citare, se scriu cu litere cursive cuvintele: *ibidem, op. cit., cf., apud, supra, infra, et alii.* Numai cuvântul idem va fi scris cu litere normale.

- Dacă se citează aceeaşi carte, dar pe pagină diferită a lucrării dvs., se va scrie numele autorului, *op. cit*., numărul paginii/paginilor. (Exemplu: Xenopol, A. D., *op. cit*., p. 195.). Dacă se citează aceeaşi sursă şi aceeaşi pagină, se va scrie ibidem (normal). Dacă se citează aceeaşi carte, dar pagină diferită, pe aceeaşi pagină a lucrării dvs., se va scrie *ibidem* (italic) si numărul paginii/paginilor.

- În cazul articolelor aparţinând domeniului Ştiinţe economice, **figurile şi tabelele** existente se numerotează şi se introduc în text (figura 1, tabelul 3 etc.). În capul tabelelor, recomandăm evitarea scrierii cu majuscule sau cu caracter bold, deoarece formatul mic al revistei va face ca acestea să ocupe mult din pagină. În ceea ce priveşte graficele, ele trebuie să cuprindă minimum de text şi să fie bine contrastate, evitându-se semitonurile de gri prea apropiate.

- Este permisă citarea altor studii personale sau lucrări nepublicate, fără însă a le include în lista referinţelor bibliografice de la sfârşitul articolului.

-Recomandăm respectarea următoarelor indicaţii referitoare la **referinţe bibliografice/reguli de citare**:

1. Cărţi (Autor, *Titlu*, locul de apariţie, editura, an, pagina)

Exemplu: Creţu, Carmen M., *Câmpul universitar şi actorii săi*, Iaşi, Ed. Polirom, 1999, p. 32.

2. Articole (Autor, „Titlu", an, *Revista*, număr (dacă se aplică), pagina sau paginile de la care s-a citat)

Exemplu: Frenţiu, George, "Un aspect specific al cheltuielilor de judecată în cazul admiterii contestaţiei la executare", in *Dreptul*, nr. 10/2003, pp. 155-161.

3. Contribuţii în cadrul unor volume colective (Autor, „Titlu”, în numele editorului (ed.), *Titlul volumului colectiv,* editura, an, pagina sau paginile de la care s-a citat)
Exemplu: Dubinskas, F. A., „Janus Organizations: Scientists and Managers in Genetic Engineering Firms”, in Dubinskas (ed.), *Making Time,* PA: Temple University Press, 1988, pp. 147-182.

4. Articole de ziar (Autor (dacă este cunoscut), "Titlu", *Ziar*, nr., data, pagina)
Exemplu: Lewis, A., "The War Crimes Tribunal Works", în *International Herald Tribune*, nr. 173, 31 July 1995, p. 5.

5. Documente ale unor organizaţii internaţionale
- Documente ale Uniunii Europene:
Exemplu: Directiva 7/23/EC, OJL 181, 9.7.1997, p. 1.
Regulamentul (EC) numărul 2027/95
- Alte documente:
Pentru toate celelalte tipuri de documente vă rugăm să urmăriţi stilul oficial de citare folosit de organizaţiile care au elaborat documentele respective.

6. Internet (url) (Adresa completă de url)
Exemplu: http://www.primariaclujnapoca.ro/.

7. Documente oficiale naţionale
Pentru toate documentele oficiale naţionale vă rugăm să urmăriţi stilul oficial de citare folosit de organizaţiile care au elaborat documentele respective.

- Observaţie: Titlurile cărţilor şi articolelor citate sau incluse în referinţele bibliografice se vor păstra în limba de origine, fără a fi traduse.

- Redacţia porneşte de la premisa că autorii au efectuat citările corecte şi nu se angajează să verifice veridicitatea lor sau să efectueze modificări de conţinut.

- Lista bibliografică se prezintă în ordine alfabetică la sfârşitul articolului, în funcţie de iniţiala numelui autorilor şi de anii de apariţie a lucrărilor, în cazul în care sunt citate mai multe lucrări ale aceloraşi autori.

Respectarea acestor recomandări va uşura activitatea colegiului de redacţie şi a editorului şi vor permite ca lucrările dumneavoastră să fie cât mai accesibile.

Colectivul de redacţie