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## JOURNAL OF PROCESS MANAGEMENT – NEW TECHNOLOGIES INTERNATIONAL

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The aim of publishing this magazine is to engage researchers and scientists, from all parts of the world, to his knowledge, both theoretical as well as practical in writing concentrated more on one site in the form of publications, which will contribute to their greater recognition and the development of economy and society. Management process of new technology permeates all aspects of social life which is a huge area of coverage through this magazine.

Sincerely,  
Prof. PhD Predrag Trajković

Kompanija za konsalting i inženjering MAPRO iz Vranja izdaje časopis MENADŽMENT PROCES – NOVE TEHNOLOGIJE INTERNACIONALNI pa Vam nudi saradnju za članstvo i pisanje naučnih i stručnih radova koje, posle recenzije i lekture objavljuje shodno uputstvu koje je u prilogu.

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Cilj izdavanja ovog časopisa je animiranje istraživača i naučnih radnika, sa svih prostora sveta, da svoja saznanja, kako teoretska, tako i praktična u pisanoj formi koncentrišu na jednom mestu u vidu publikacije, što će doprineti njihovoj većoj afirmaciji i razvoju privrede i društva. Menadžment proces novih tehnologija prožima sve pore društvenog života što čini ogroman prostor obuhvatnosti rada kroz ovaj časopis.

S poštovanjem,  
Prof. dr Predrag Trajković

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# HOMOLOGY MODELING AND STRUCTURAL ANALYSIS OF AGEING RELATED PROTEINS TERT, HIF1 ALPHA AND AANAT FROM DANIO RERIO, ORYZIAS MELASTIGMA AND ESOX LUCIUS

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**Abstract:** Telomerase reverse transcriptase, Arylalkylamine N-acetyltransferase and hypoxia inducible factor 1 alpha are the aging related proteins which are responsible for ageing of *Daniorerio*, *Esox Lucius* and *Oryziasmelastigma* respectively. The amino acid sequences of these proteins were obtained from NCBI protein data bank. The physiochemical properties of these three proteins were analyzed using ExPASy'sprotparam tool, SOPMA and GOR4. The three dimensional structure of these three proteins have not been determined till date. In this article, the three dimensional structure or homology modeling was done using SWISS MODEL and checked quality by ERRAT and RAMPAGE and then the structures were refined using Chiron energy minimization server. Active sites of each model were predicted using active site prediction server.

**Keywords:** Energy minimization, GOR 4 and SOPMA, Homology modeling, TERT, HIF1 alpha, AANAT.

## 1. INTRODUCTION

Aging can be defined as the time-related deterioration of the physiological functions necessary for survival and fertility of an organism. The Arylalkylamine N-acetyltransferase, Telomerase Reverse Transcriptase and Hypoxia inducible factor1alphaare three ageing related proteins found in the fish species *Esoxlucius* (Northern pike),*Daniorerio* (Zebra fish) and in *Oryziasmelastigma* respectively. The "Arylalkylamine N-acetyltransferase" protein is responsible for the melatonin synthesis in this fish and in other vertebrate pineal gland. Melatonin (N-acetyl-5-methoxytryptamine) is a hormone which is essential for the function of the circadian clock and it affects the fish immune responses (Zhdanovaet al.2008),the protein "Telomerase Reverse Transcriptase" (gene TERT) is a catalytic sub unit of the enzyme telomerase which together with the

telomerase RNA component(TERC) comprise the most important unit of telomere complex. Telomerase adds the DNA sequence repeats (TTAGGG) to the 3' end of DNA strand in the telomere region which are found at the end of the eukaryotic chromosome. The telomeres are shortened after each replication cycle. So, the telomere length is a significant biomarker of normal aging of the vertebrates. The increased TERT ability prevent telomere shortening and cause cancers.( Reviewed in Colg in et al.)There isanother protein found responsible for aging in fish is Hypoxia inducible factor 1-alpha (HIF1-Alpha) is found in *Oryziasmelastigma*; is a transcription factor. The HIF1- alpha signaling cascade mediates the effects of hypoxia, the state of low oxygen concentration on the cell. Hypoxia often keeps cells from differentiating. It promotes the formation of blood vessels and vascular system in embryos and promotes cancers (Maynard & Ohh, 2007). Hypoxia induces the telomerase reverse transcriptase gene expression in non-tumor fish tissues (Richard et al.2006). In general, HIF1-alpha are vital to development. In mammals, deletion of the HIF-1 genes results in prenatal death. It plays a central role in regulation of metabolism.

Although all the above mentioned proteins have been sequenced in fishes but so far there are no structural and functional documentations available. The purpose of this study was to structurally characterize these proteins using bioinformatics tools. Reliable structural prediction of these proteins may be beneficial to characterize their functions. In this study, we studied the primary and secondary structures of Arylalkylamine N-acetyltransferase, telomerase reverse transcriptase and hypoxia inducible factor 1 alpha proteins and predicted the tertiary structures of these three proteins. Post sequence

retrieval from NCBI Protein Database, ProtParam was used for primary analysis of molecular weight, pI, GRAVY etc. (Gasteiger et al.2005). The secondary structures were predicted and analysed using SOPMA, GOR 4, ERRAT and RAMPAGE. The 3D structure modeling were done by SWISS-MODEL and energy minimization and side chain refinement was performed using Chiron rapid energy minimization server. The 3D models were analysed using various tools like POPS-wiki software, Profunc software and Active site prediction server.

## 2. METHODOLOGY

The following methods were applied to model the homology structures of the three ageing related proteins and to characterize them.

### 2.1 PRIMARY STRUCTURE RETRIEVAL

The amino acid sequences of the Arylalkylamine N-acetyltransferase, telomerase reverse transcriptase and Hypoxia inducible factor 1 alpha were retrieved from the National Center for Biotechnology Information (NCBI)(Accession No- AF034081.1, AA163300.1 and ABC47310.1 respectively.) the sequences were analyzed using ProtParam Online tool.

### 2.2 PHYSIO-CHEMICAL PARAMETERS AND SECONDARY STRUCTURE ANALYSIS

The obtained amino acid sequences were analyzed using the ProtParam. The computed parameters include the molecular weight, theoretical pI, amino acid composition, extinction coefficient, estimated half-life, instability index, aliphatic index and grand average of hydropathicity (GRAVY ) (Table2). The GOR4 analysis and SOPMA were used to predict the secondary structures of the proteins (Table 3). The Self Optimized Prediction Method with Alignment (SOPMA) (Geourjon et al.1995, Kumar et al.2012) analysis was done for analyzing the structural components. Comparison was made between the GOR4 and SOPMA analysis results.

### 2.3 HOMOLOGY MODELING OR TERTIARY STRUCTURE PREDICTION

The tertiary structures were predicted using the SWISS-MODEL. The efficiency and evaluations of all the tertiary structures were predicted using ERRAT (Lerner et al.1968) and

RAMPAGE (Lovell et al., 2003) server. The Chiron rapid energy minimization server was employed to refine the predicted 3D structures of the proteins. It corrects the side chain as well as hydrogen's were added and the unusual geometry of the atom type along with residues was fixed. The energy minimization steps were performed using the Gala software where default parameters of the predicted 3D structures were set. These refined structures were used in further studies.

### 2.4 CHARACTERIZATION AND STRUCTURAL ANALYSIS OF REFINED 3D MODELS:

1. Active site predictions.
2. SASA percentage predictions.

After assurance of the good quality of the designed model, the properties of the proteins were obtained using the Active Site Prediction Server (Table 6,7,8), POPS-wiki Server (Cavallo et al. 2003) (Table 5) and Profuncsoftware (Laskowski et al.2005) (table 4). The active site prediction server was used to predict the total cavities and the active sites of the homology model of the proteins. The POPS –wiki software calculate accessible surface area of the proteins. The Profunc software was used to obtain the accessible vertices, buried vertices and the nature of the amino acid found higher in the large cavities of the protein structures and also to predict the functions of the proteins.

## 3. RESULTS

### 3.1 PRIMARY STRUCTURE RETRIEVAL

The aging related genes, TERT gene, hypoxia-inducible factor 1 alpha mRNA and AANAT1 gene were found in different freshwater fishes (Table1). The TERT gene codes for the telomerase reverse transcriptase protein, while hypoxia inducible factor 1 alpha mRNA codes for the hypoxia inducible factor 1 alpha protein and AANAT1 gene codes for the Arylalkylamine N-acetyltransferase protein. The amino acid sequences of Telomere reverse transcriptase were found to be 1098 aa, "Arylalkylamine N-acetyltransferase were found to be 208 amino acids. While, the amino acid sequence of the protein "Hypoxia inducible factor 1 alpha" in *Oryzias melastigma* were found to be 748aa.

Accession No.	Protein name	Gene name	Organism	No. of nucleotide sequences
AA163300.1	Telomerase reverse transcriptase	TERT	<i>Danio rerio</i>	3530 bp
ABC47310.1	Hypoxia inducible factor 1 alpha	Hypoxia inducible factor 1 alpha mRNA	<i>Oryzias melastigma</i>	3454 bp
AF034081.1	Arylalkylamine N-acetyltransferase	AANAT1	<i>Esox lucius</i>	2014 bp

Table1- Aging genes and the related coded proteins

### 3.2 PHYSIO-CHEMICAL PARAMETERS AND SECONDARY STRUCTURE ANALYSIS:

The primary structures analyzing using ProtParam Online tool showed the Molecular weight, Theoretical pI, Instability index, Aliphatic index and Hydropathicity score (GRAVY) (Table-1) of the aging proteins; where the lower GRAVY values indicating the better possibilities of aqueous interactions, Pi values show the nature of the amino acids.

Generally it was observed that towards acidic pI value, the GRAVY tends to be low. GOR4 and SOPMA were used to predict the secondary structures, percentage of alpha, extended and random coils, beta turns of the proteins which are shown in the table-2. The secondary structures indicate whether a given amino acid lies in a helix, strand or coil (Jyotsna et al. 2004, Ojeiru et al. 2010).

In this analysis it was identified that the random coil dominates the other forms of the structures.



Accession no	organism	Protein name	Amino acid	Molecular weight	pH	Aliphatic index	GRAVY	Instability index	stability
AA163300.1	<i>Daniorerio</i>	Telomerase reverse transcriptase	1098	125976.4	9.87	86.67	-0.282	52.83	unstable
ABC47310.1	<i>Oryziasmelastigma</i>	Hypoxia inducible factor 1 alpha	748	83399.5	4.91	79.12	-0.512	55.76	unstable
AF034081.1	<i>Esoxlucius</i>	Arylalkylamine N-acetyltransferase	208	23637.6	7.75	95.53	0.075	71.11	unstable

Table 2- Protparam analysis of the primary and secondary structures of the proteins

SI no	organisms	Accession number	GOR 4 analysis			SOPMA prediction			
			$\alpha$ Helix (Hh)%	Extended strand (Ee)%	Random coils %	$\alpha$ helix (Hh)%	$\beta$ turns (Tt)%	Extended strand (Ee)%	Random coils %
1	<i>Daniorerio</i>	AA163300.1	30.69	22.13	47.18	47.72	2.55	11.02	38.71
2	<i>Oryziasmelastigma</i>	ABC47310.1	32.62	13.77	53.61	35.03	4.41	13.24	47.33
3	<i>Esoxlucius</i>	AF034081.1	19.23	31.73	49.04	34.13	7.69	14.90	43.27

Table 3- GOR 4 and SOPMA prediction of the secondary structures of the proteins

### 3.3 HOMOLGY MODELING OR TERTIARY STRUCTURE PREDICTION AND ANALYSIS

The SWISS-MODEL online tool was used to predict the tertiary structures of the protein. The structures were evaluated using the ERRAT and RAMPAGE tools. In RAMPAGE, the telomerase reverse transcriptase, HIF1-alpha and AANAT protein scored 90.85%, 75.0% and 97.5% respectively and in ERRAT they scored 83.036%, 76.92% and 95.33% respectively. In SWISS-MODEL the structures of these proteins were made based on the template model that is 4lmoC(2.37A), 113eA (99.9A) and 1cjlwA (1.80A) respectively.

Chiron was used to refine the tertiary structures

of the proteins predicted by SWISS-MODEL by minimizing the number of clashes or non-physical atomic interactions also used the GALA Online tool by which the default parameters were set.

After refinement, the proteins- TERT, HIF1-alpha and AANAT protein scored 92.1%, 81.2% and 97.5% respectively in RAMPAGE. In ERRAT, they scored 86.607%, 68.0% and 88.15% respectively which are the reliable scores of the structures.

The refined protein 3D models were used in further studies to predict the protein functions.

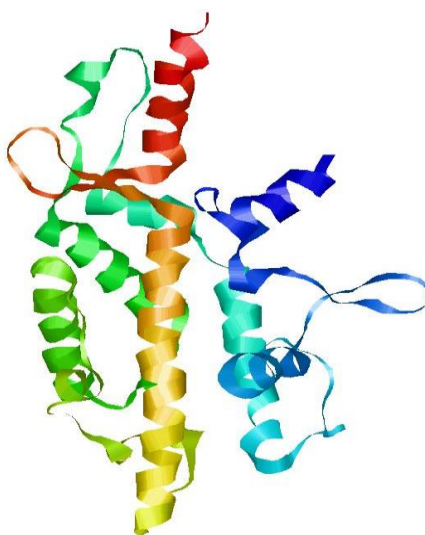


Fig1: 3D structure of TERT protein of *D. rerio*

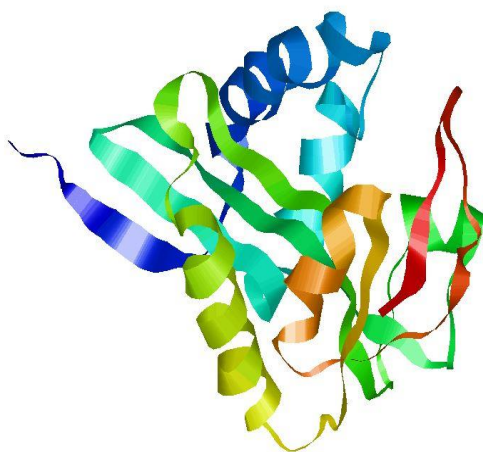


Fig2: 3D structure of AANAT protein of *E. lucius*

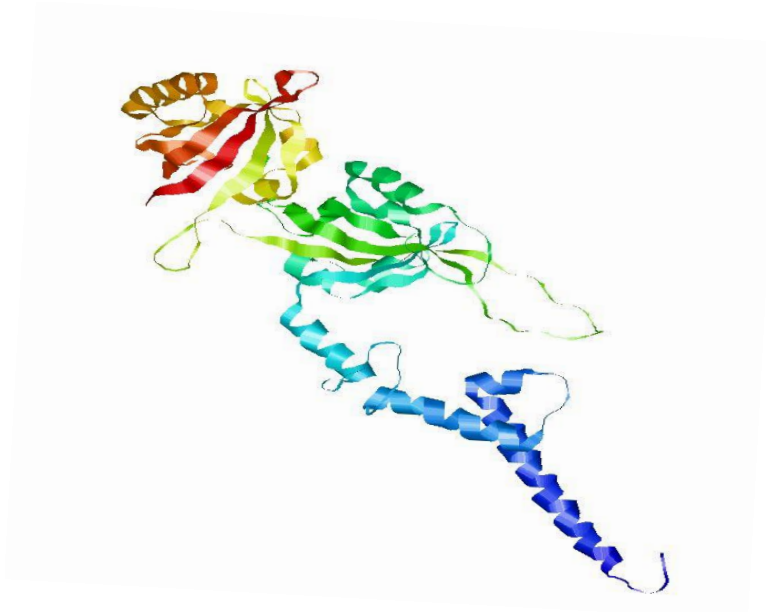


Fig 3: 3D structure of hypoxia inducible factor 1 alpha protein of *O. melastigma*

#### 4. CHARACTERIZATION AND STRUCTURAL ANALYSIS OF THE REFINED 3D MODEL:

After obtained the refined 3D model of the proteins the Profunc online tool was used to get the large clefts, accessible atoms, buried

atoms and the nature of the amino acids in large amount found in the largest clefts of the proteins.

Using Profunc, the following characteristics were found shown in the following table-

Name of organisms	Protein name	Volume of the largest cleft (A <sup>3</sup> )	Accessible vertices	Buried vertices	Nature of the amino acids found in large amount
<i>Daniorerio</i>	Telomerase reverse transcriptase	5953.08	63.09	12.48	Aliphatic (A,V,L,I,M)
<i>Oryziasmelastigma</i>	Hypoxia inducible factor 1 alpha	1613.25	53.49	9.50	Aliphatic
<i>Esox Lucius</i>	Arylalkylamine N-acetyltransferase	1889.58	77.37	17.13	Aliphatic

Table 4- Profunc analysis of the refined 3D models of the proteins

Here, it shows the telomerase reverse transcriptase protein has large clefts comparing to the other two proteins. It has the higher number cavities hence here, the probability of protein to form interactions with other molecules particularly with small ligand is more

and the nature of the large number of amino acids found in this cleft is aliphatic or hydrophobic. It means they remain in the core region of the protein. The amino acids available in this cleft are Alanine, valine, leucine, isoleucine and methionine.

By employing Active Site Prediction server, all the cavities of the proteins were predicted and the volume and cavity point of each cavity were also collected. The number of cavities found in TERT protein in *D. rerio* is 36, However, the total cavities found in AANAT protein is 24 while in the protein HIF1-alpha the number is 40. The cavity

volumes and cavity points were shown in table-6, 7 and 8.

After obtaining all the cavities and clefts, Solvent Accessible Surface Area (SASA) analysis was performed by the POPS-wiki server. From POPS-wiki server, the following data were obtained.

Name of organism	Protein name	Hydrophobic area (%)	Hydrophilic area (%)	Total (%)
<i>Daniorerio</i>	Telomerase reverse transcriptase	9450.05	6888.38	16338.43
<i>Oryziasmelastigma</i>	Hypoxia inducible factor 1 alpha	2412.33	1622.00	4034.33
<i>Esox Lucius</i>	Arylalkylamine N-acetyltransferase	5640.84	3888.21	9529.05

Table 5- POPS-wiki analysis of the predicted 3D models of the proteins

Cavity	Volume(Å <sup>3</sup> )	Cavity point		
cavity-1-IWYLFQVRANMHGS DCKP	1426	76.154	78.357	53.061
cavity-2-RTLFWGV SQNYMECIADK	1381	66.055	79.997	75.829
cavity-3-HERKTGMLFSIPWYVQNACD	1217	62.976	73.617	62.112
cavity-4-RFNMGEASLVQDIYKCHP	1208	80.796	81.238	64.885
cavity-5-RLSQEWNMGAVDFKCH	1116	74.878	86.551	74.458
cavity-6-QERVTLGKFNWMIHSPYCA	1116	61.339	71.513	73.510
cavity-7-LMNYCWVERQGAKIFHP	1103	79.643	59.827	74.579
cavity-8-VWYMRFQECLAGKPHIDS	1057	80.609	67.621	91.734
cavity-9-KMHQVENRCAWLG PFI	1051	77.627	60.170	88.359
cavity-10-VTRLMEFWHSYGC I KPDN	1017	64.360	76.533	85.226
cavity-11-QSEFLKMPDWN RVHAG	1014	79.711	86.044	84.232
cavity-12-AGQFLSMRDNEYKHIPC	960	83.327	72.151	64.809
cavity-13-EMITWYFLQNRVAGSDCK	922	67.902	83.147	56.308
cavity-14-FMLSWEQNVRDPKAHG	902	82.462	78.355	85.464
cavity-15-RFIYGVSLNWQEMADKH	880	69.671	78.671	70.210
cavity-16-KSYVHLFWRCGQADNMP	857	77.062	68.486	52.218
cavity-17-RAELWMSYQVIFKPGH	849	67.952	75.177	94.750
cavity-18-RKPYSLHVF CGQDAN	794	70.882	64.499	51.511
cavity-19-_HKGEMLSTRIWYFQANVD	794	62.868	77.337	48.109
cavity-20-IWYLFQVRANMHGS DCKP	723	58.668	64.857	89.344

cavity-21-NLSHKYPVMRWQE	675	67.993	56.048	68.066
cavity-22-VRWQAMELHSHKYCNG	634	61.539	59.862	91.375
cavity-23-KHTGLRPFYSV	599	59.979	61.410	55.049
cavity-24-WMILQERHPYFCSK	586	84.648	65.445	77.609
cavity-25-ELRMQDNKHVAGS	585	85.664	80.731	78.438
cavity-26-IFHSYNVRWLQGACDMKP	556	72.712	70.880	57.936
cavity-27-QVRWNLMESHKACAG	520	63.070	57.841	82.583
cavity-28-HMAREKQVCYNWGP	519	70.170	59.372	93.884
cavity-29-HKELTGRMFISIPYV	502	56.715	68.049	57.833
cavity-30-VYRLCKAEGFQHIP	481	77.784	59.726	62.310
cavity-31-QERWLVTGNFMSHK	470	58.070	58.186	73.890
cavity-32-YVMFGALCQWRKEIHPN	466	76.909	65.796	68.364
cavity-33-KHTGEMLSRIPWYQAV	378	61.057	68.618	47.950
cavity-34-LHMGSWNCVIQR	345	70.087	64.352	78.383
cavity-35-WQYMRCIFLSGVPHDKAE	310	73.861	72.145	86.990
cavity-36-GMSRTHWLFKEQAD	243	63.768	75.676	41.181

Table 6- Active site prediction of TERT protein of *D. rerio*

cavity	Volume(Å <sup>3</sup> )	Cavity point		
cavity_1_QPLVGYSNKMADHEFTI	1757	3.991	-6.744	148.857
cavity_2_VTSHLPEARQYGNKMDF	1621	-4.597	-12.750	147.639
cavity_3_VPGYNIHMTDKFLQESCA	1440	2.426	-11.167	156.191
cavity_4_YERVLNHMPQGCSDFTI	1362	13.051	9.712	167.743
cavity_5_KRVNHLMEPGYICISFDT	1287	16.451	4.095	160.893
cavity_6_HVKYLISMGRFENCADPT	1245	16.280	-6.025	157.461
cavity_7_VLFDMYTCKIPSEQHNGWRA	1128	21.469	-6.196	171.741
cavity_8_PDCRLWEHVFSTKNAYMG	997	27.951	0.379	1178.421
cavity_9_LFYCMNTGDKRWHVAPSIE	836	23.369	-12.415	168.971
cavity_10_PVITKEHYRDLFNSMGAW	836	31.971	-3.344	163.678
cavity_11_QNIDLYVFMTEGKPHCWAS	832	15.703	-8.482	179.954
cavity_12_KSYFDLVTAMHPREIQN	827	--11.523	-10.201	138.188
cavity_13_LYIESMVAFGNCDKTRHWP	827	16.219	-11.833	163.286
cavity_14_YDELGVFRIHMPQTCSW	816	12.144	1.437	167.902
cavity_15_TNKCQRFSMPIHDYEVAL	761	38.115	17.977	173.612
cavity_16_FRVLMEDQTPHSCWYNK	726	13.655	4.410	176.367
cavity_17_SFHVPEPTYDRKLM	688	24.809	1.287	158.486
cavity_18_RFEDPVTLKHYNISMGACW	612	31.244	2.663	172.762
cavity_19_EDCRLFHVPTYNKIMSAG	608	24.701	7.576	175.730
cavity_20_VDESPGYQNLFRIMTCKH	602	3.500	-0.768	175.650
cavity_21_GTQFNIALYVMPWCSC	588	9.609	-15.688	177.000
cavity_22_YRDLTQCNVIFSPHMAGK	573	29.254	17.840	161.703
cavity_23_NYRLFSKAMEHCDGIVTW	572	38.050	6.948	176.374
cavity_24_YRDLQVIFSCHTNAAGEK	569	31.555	15.330	159.132
cavity_25_KPEQVGSNYIAHDTRLM	543	-4.741	1.609	159.976
cavity_26_CVFNMQTAYEHLHGRDK	531	44.348	10.373	162.372
cavity_27_TELASHPIYRKMDN	525	-8.019	-19.361	141.707
cavity_28_QNYLVESMFIKAGDC	513	10.344	-16.363	157.595

cavity_29_PSVYNKIDETHRLGFMQ	489	-0.286	3.695	168.282
cavity_30_TLRVFSKCMHDNQYAGE	452	36.435	13.067	167.552
cavity_31_GRKSEYDLFAVTMHPI	447	-17.739	-21.517	136.535
cavity_32_QTNRVICMPYHSDAFGKL	424	37.015	23.010	165.622
cavity_33_SRLIYMDEP	386	-6.839	-9.948	135.076
cavity_34_VNCFMITYLESWHRDGA	377	44.098	3.247	166.590
cavity_35_EPQVGNIDSHL	377	-3.784	-6.018	163.393
cavity_36_YVIDSPETGQNLFRM	342	0.569	-5.729	173.590
cavity_37_LYRTNQKCVIMPHSDF	325	30.139	20.328	172.016
cavity_38_FDHLMKSTVCNQYEWGR	295	37.759	2.579	160.170
cavity_39_SKEYDLFVTAHMP	286	-20.385	-14.753	143.950
cavity_40_TGIQNDLYMVFCCKPHRW	274	8.482	-9.090	169.466

Table 7- Active site prediction of Hypoxia Inducible Factor 1 alpha protein of *Oryziasmelastigma*

Cavity	Volume(Å <sup>3</sup> )	Cavity point		
cavity-1-SDQVRHKGLEIFWAYPC	1208	47.571	40.282	49.005
cavity-2-FIVARFLSHYGCMPMTD	997	56.230	46.569	58.577
cavity-3-LTHPGRSEFDVKICA	879	37.469	53.407	59.971
cavity-4-FKCLESYQPMTHVAGK	877	49.273	63.004	51.683
cavity-5-QWLCSRMGFVYPAHKETD	761	57.989	56.618	38.650
cavity-6-FVLHECPSMDTIAGWKO	753	63.580	45.917	53.057
cavity-7-GRESFDVHKLIA	704	38.223	43.889	59.460
cavity-8-VGKFMASLYHECPDKI	621	53.005	47.616	48.660
cavity-9-EFRLIDCSYAPTH	592	45.079	57.396	56.317
cavity-10-SPEWFRKICLYOM	588	40.199	57.770	47.014
cavity-11-QIGKRVSWMFLYPC	586	46.259	43.942	38.553
cavity-12-ESIALPRTHCFK	545	53.463	59.338	61.121
cavity-13-QRVEFSAILYGPCMDT	540	53.443	36.771	50.897
cavity-14-RFILYSWQCMVGAHK	518	49.424	54.767	41.160
cavity-15-MLHKRVEATSGFDQWE	448	65.704	52.240	46.552
cavity-16-SEWFKRIGCLYQM	438	39.355	54.889	40.352
cavity-17-LEDSAPRFLTHVC	386	49.118	52.254	63.768
cavity-18-YVPHRLSQTGKDWE	375	61.58	63.670	45.263
cavity-19-LHRESIAFVGCP	365	47.765	42.392	61.913
cavity-20-ALPGSQERKWFVDVHI	360	34.402	46.021	48.395
cavity-21-LFYEPCSMOVIGTQK	339	62.021	39.346	47.107
cavity-22-LHFPTQASGKDW	333	63.538	58.152	54.597
cavity-23-VLCHYEPFMTASQRKDW	317	60.144	56.036	51.936
cavity-24-RFWSLMYQGPKDIVE	173	55.334	44.936	38.400

Table 8- active site prediction of AANAT protein of *E. lucius*

## 5. DISCUSSION

The secondary structure predicted by SOPMA and GOR 4 (Table 2) showed the position of amino acid residues whether they lie in helices, strands or in coils. The analysis suggested that in the SOPMA prediction the alpha helix is dominant only in TERT proteinie. 47.72%, but in case of AANAT protein of *Esoxlucius* and Hypoxia inducible factor 1 alpha protein of *Oryziasmelastigma* the random coils are dominant ie.43.27% and 47.33% respectively. On the other hand in the GOR4 analysis, it has been found that the random coils are dominant in all the proteins ie. 47.18% , 49.04% and 53.61% in the proteins TERT , AANAT and in HIF1 alpha respectively. It showed that the alpha helix, beta sheets, turns and random coils are well-folded in its tertiary form. In the protparamanalysis (Table1) it has been found that the aliphatic index scores of AANAT protein is higher than the other proteinsie 95.53; which suggests that the AANAT protein has more stability over different temperature ranges. The pI scores indicate that all the proteins are basic in nature except the HIF1-alpha protein where the pI value was found to be 4.91. The GRAVY index are negative in all the proteins studied. It suggests that the better possibilities of aqueous interactions. theinstability index values were found to be 71.11, 52.83% and 55.76 for the AANAT protein of *E. lucius*, TERT of *D. rerio* and HIF1 alpha respectively where it indicated that these protein structures were unstable. On the other hand the, the SASA analysis by POPS- wiki server helps in understanding the probable binding oriented conformational changes that may occur in protein structures. It was found that the hydrophobic solvent accessible areas were more in all the proteins than the hydrophilic area which suggested that they have greater potentiality of binding to the ligand in solvent. In profunc server the volumes of the large cleft of all the proteins were found and it has been found that the more aliphatic molecules (such as alanine, valine, leucine, isoleucine, methionine) are present in the largest clefts of the proteins. In active site prediction analysis it has beenfound that among all the proteins the HIF1 alpha protein have large number of cavities which is 40 , in AANAT protein 24 and in TERT protein it was 10

found to be 36. Among all three proteins the largest active site volume was found in HIF1 aphaprotein which is 1757, it means comparatively among all three proteins this protein of the species *O. melastigma* has more ligand binding sites and functional sites in their cavities. This server illustrated that all the proteins have good number of active sites.

## 6. CONCLUSION

Analysis and evaluation of the predicted secondary and tertiary structures of the aging related proteins generated by SWISS MODEL were found to be reliable with high number of hydrophobic residues at their active sites. It can be assumed that these models and the data havethe potentiality to be used as source for further aging related studies in human and other vertebrates.

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## AN EMPIRICAL STUDY OF CURRENT RATIO

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**Abstract:** This work aims to address problems of liquidity and in particular the values and factors that influenced the values of the coefficient of total liquidity sixty Bulgarian public companies for the period 2013 - 2007 year. In the analysis it was found that some businesses fail to achieve favorable values of the ratio between current assets and current liabilities. It was found that plants have a low level of total liquidity, which can create problems in repayment of short-term liabilities. It can be seen that there are companies with very high liquidity, which is not so good phenomenon, ie the retention of a high level of resources required. Businesses should conduct a thorough analysis and implement appropriate measures to correct adverse changes. The financial management of the companies surveyed had worked towards improving the state of the enterprise, thereby seeking to reduce liquidity risk.

**Key words:** *Liquidity, Current ratio, Current assets, Current liabilities.*

### 1. Introduction

Liquidity<sup>1</sup> is the potential opportunity for conversion of assets available to an undertaking in the tender, which depends on their value to the interested and willing to make a deal people. As far as liquidity is a complex concept, some authors<sup>2</sup> consider it as an opportunity to cover the liabilities of the entity so that it can settle on time and without difficulty to continue their activities. It should be noted that all efforts to transfer rights to use

and / or property shall not require the occurrence of large amounts of spending.

Liquidity is of course also as short-term solvency<sup>3</sup>, as the economic literature widely used four indicators of liquidity, which depending on the features you are in the most general relation between the individual and the amount of current assets to current liabilities. Developed many indicators of liquidity enriching tools for analysis.

### 2. Exposition

The structure of current assets is particularly important because the cost of holding inventories include the costs of storage, the risk of deterioration or obsolescence and opportunity cost of capital, ie returns offered by other sources. Should be examined in detail the need for stocks and any costs which would be incurred in the purchase and sale of other funds, the cost of each order. You should look at the sectoral affiliation of the enterprise and systems used for deliveries<sup>4</sup>.

When choosing between holding cash in hand, bank balances or securities held recur such questions.

From an accounting perspective the assets and liabilities in the balance sheet are arranged acc any sign, i.e. there is a rule that specified the sequence of their presentation in the financial statements. Assets are arranged on the principle of liquidity, while liabilities are arranged on the principle of chargeability. In Bulgaria accepted the slowest liquid assets are recorded in the balance sheet first. Most

<sup>1</sup> The material is analytical in nature and is not a recommendation to make an investment decision.

Материалът е с аналитичен характер и не представлява препоръка за вземане на инвестиционно решение.

<sup>2</sup> Николов, Ч. & Стоилова, Д. (2011). Финанси на предприятието, Пето допълнено и преработено издание, издателство БОН, Благоевград, с. 201 – 205.  
ISBN 978-954-395-073-7.

<sup>3</sup> Стоилова, Д. (2013). Финансов мениджмънт, издателство БОН, Благоевград, с. 45.  
ISBN 978-954-395-020-1.

<sup>4</sup> (Note my - AtanasDelev) Systems used for procurement can be Material Requirements Planning, Just-In-Time.

liquid assets are recorded in the balance sheet last. Thus the first recorded fixed assets and current assets behind them. Subject to the principle of chargeability is first recorded in equity. After equity recorded the slowest required liabilities and finally recorded the fastest required liabilities. In other countries, the principle of liquidity and the principle of chargeability also observed, but consistency in the recording of assets and liabilities is different.

Liquidity ratios have some undesirable characteristics. They are related to the dynamics of current assets to current liabilities, i.e. they are constantly changing, which can make the information received stale.

It should be noted that the calculation of liquidity ratios in current assets amount shall not include costs for future periods, and in short-term debt should not include financing and deferred income.

As a measure of liquidity can state Current ratio, Quick ratio, Liquidity ratio immediate, Liquidity cash ratio, Liquidity revenue, Interval meter, Working<sup>5</sup> capital<sup>6</sup>, Net working capital, Ratio of net working capital to total assets and others.

Current ratio can be represented by the following formula:

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Current ratio should be about two, it can be expected normal level of liquidity.

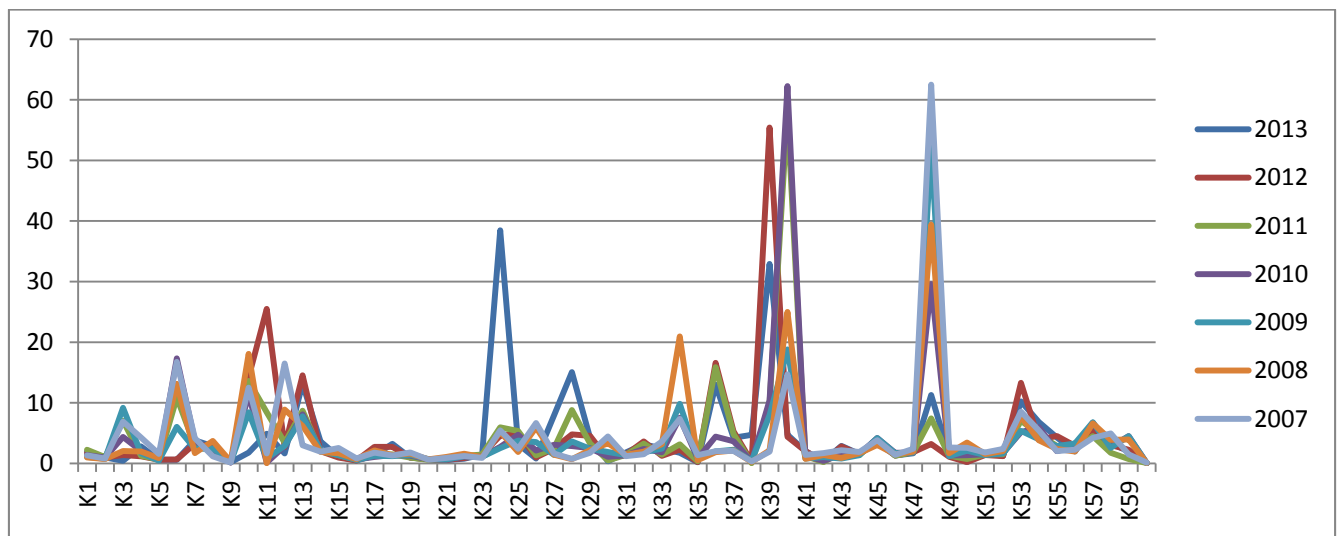
### 3. Results and Discussion

When calculating the Current ratio sixty Bulgarian public companies receive the following values shown in Figure 1.

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<sup>5</sup>Brealey, R.A. & Myers, S.C. (2003). Principles of Corporate Finance, 7th Edition, The McGraw-Hill Companies, p. 826.

<sup>6</sup>Fabozzi, F. J., & Peterson, P. P. (2003). Financial Management and Analysis, Second Edition (Vol. 132). John Wiley & Sons, p. 729.



**Figure 1: Absolute values of the current ratio of sixty Bulgarian public companies for the study period.**  
**Source:** own calculations from the annual financial statements of companies.

Ratio values between 1.8 and 2.2 for 2013 are 5 companies or 8.33% of the examined non-financial companies. Index values between 1.8 and 2.2 for 2012 are three companies or 5% of the surveyed companies. Index values between 1.8 and 2.2 for 2011 are 4 companies or 6.67% of the examined non-financial companies. Index values between 1.8 and 2.2 for 2010 are 7 companies or 11.67% of the examined non-financial companies. Index values between 1.8 and 2.2 for 2009 are 5 companies or 8.33% of the examined non-financial companies. Index values between 1.8 and 2.2 for 2008 are 12 companies or 20% of the non-financial enterprises. Index values between 1.8 and 2.2 for 2007 are 8 companies or 13.33% of the examined non-financial companies.

Ratio values between 1.3 and 1.79 for 2013 are 10 companies or 16.67% of the examined non-financial companies. Index values between 1.3 and 1.79 for 2012 are 6 companies or 10% of the non-financial enterprises. Index values between 1.3 and 1.79 for 2011 are 10 companies or 16.67% of the examined non-financial companies. Index values between 1.3 and 1.79 for 2010 are 11 companies or 18.33% of the examined non-financial companies. Index values between 1.3 and 1.79 for 2009 are 9 companies or 15% of

the non-financial enterprises. Index values between 1.3 and 1.79 for 2008 are 12 companies or 20% of the non-financial enterprises. Index values between 1.3 and 1.8 in 2007 are 13 companies or 21.67% of the examined non-financial companies.

Ratio values between 0.8 and 1.29 for 2013 are 5 companies or 8.33% of the examined non-financial companies. Index values between 0.8 and 1.2999 for 2012 are 10 companies or 16.67% of the examined non-financial companies. Index values between 0.8 and 1.29 for 2011 are 8 companies or 13.33% of the examined non-financial companies. Index values between 0.8 and 1.29 for 2010 are 8 companies or 13.33% of the examined non-financial companies. Index values between 0.8 and 1.29 for 2009 are 9 companies or 15% of the non-financial enterprises. Index values between 0.8 and 1.29 for 2008 are 5 companies or 8.33% of the examined non-financial companies. Index values between 0.8 and 1.2999 for 2007 are 7 companies or 11.67% of the examined non-financial companies.

Current ratio values below 0.8 for 2013 are 13 companies or 21.67% of the examined non-financial companies. Ratio values below 0.8 for 2012 are 12 companies or

20% of the non-financial enterprises. Ratio values below 0.8 for 2011 are 12 companies or 20% of the non-financial enterprises. Ratio values below 0.8 for 2010 are 9 companies or 15% of the non-financial enterprises. Ratio values below 0.8 for 2009 are 10 companies or 16.67% of the examined non-financial companies. Index values below 0.8 for 2008 are 10 companies or 16.67% of the examined non-financial companies. Index values below 0.8 for 2007 are 6 companies or 10% of the non-financial enterprises.

Values of the current ratio above 2.2 and below 3.0 for 2013 are 4 companies or 6.67% of the examined non-financial companies. Values of the index above 2.2 and below 3.0 for 2012 are 9 companies or 15% of the non-financial enterprises. Values of the index above 2.2 and below 3.0 for 2011 are 5 companies or 8.33% of the examined non-financial companies. Values of the index above 2.2 and below 3.0 for 2010 are 7 companies or 11.67% of the examined non-financial companies. Values of the index above 2.2 and below 3.0 for 2009 are 10 companies or 16.67% of the examined non-financial companies. Values of the index above 2.2 and below 3.0 for 2008 are two companies or 3.33% of the examined non-financial companies. Values of the index above 2.2 and below 3.0 for 2007 are 8 companies or 13.33% of the examined non-financial companies.

Ratio values of 3.0 and 4.0 in 2013 are 7 companies or 11.67% of the surveyed non-financial companies. Index values of 3.0 and below 4.0 for 2012 are 5 companies or 8.33% of the examined non-financial companies. Index values of 3.0 and below 4.0 for 2011 are 4 companies or 6.67% of the examined non-financial companies. Index values of 3.0 and below 4.0 for 2010 are three companies or 5% of the non-financial enterprises. Index values of 3.0 and below 4.0 for 2009 are 5 companies or 8.33% of the examined non-financial companies. Index values of 3.0 and below 4.0 for 2008 are 8 companies or 13.33% of the surveyed non-financial companies. Index values of 3.0 and below 4.0 for 2007 are two companies or 3.33% of the examined non-financial companies.

Index values of 4.0 and 10.0 in 2013 are 9 companies or 15% of the non-financial enterprises. Index values of 4.0 and below 10.0 for 2012 are 9 companies or 15% of the non-financial enterprises. Index values of 4.0 and 10.0 in 2011 are 13 companies or 21.67% of the surveyed non-financial companies. Index values of 4.0 and 10.0 in 2010 are 10 companies or 16.67% of the surveyed non-financial companies. Index values of 4.0 and 10.0 in 2009 are 10 companies or 16.67% of the examined non-financial companies. Index values of 4.0 and 10.0 in 2008 are 6 companies or 10% of the non-financial enterprises. Index values of 4.0 and 10.0 in 2007 are 11 companies or 18.33% of the surveyed non-financial companies.

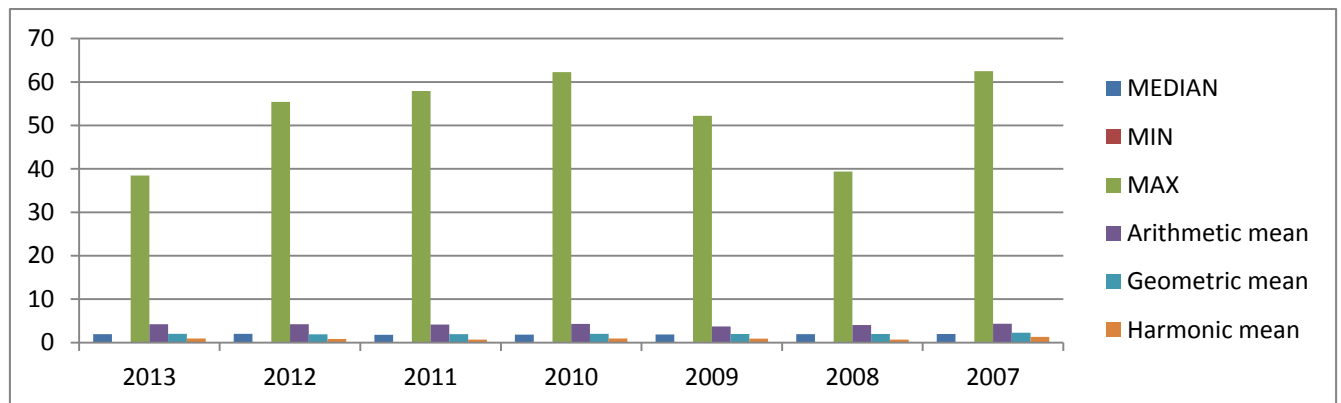
Values of the index above 10.0 for 2013 are 7 companies or 11.67% of the examined non-financial enterprises. Values of the index above 10.0 for 2012 are 6 companies or 10% of the non-financial enterprises. Values of the index above 10.0 for 2011 are 4 companies or 6.67% of the examined non-financial companies. Values of the index above 10.0 for 2010 are 15 companies or 25% of the non-financial enterprises. Values of the index above 10.0 for 2009 are two companies or 3.33% of the examined non-financial companies. Values of the index above 10.0 for 2008 are 5 companies or 8.33% of the examined non-financial companies. Values of the index above 10.0 for 2007 are 5 companies or 8.33% of the examined non-financial companies.

This indicates that a small proportion of firms reached such proportions between the different types of current assets that is most favorable to them. Low levels of liquidity are not appreciated because now may experience difficulties in repayment. However, it should be noted that any company needs a different amount of current assets. Financial managers are aware that excessive liquidity company is not a good testimonial for their work as there is excessive retention of funds that can and should be invested in the business, which brings higher returns. Interest is how the surveyed enterprises have higher values of the Current ratio. In the analysis reveals, that the amount of companies that fall into different

groups, is close in value. This indicates that overall policy on liquidity management in most cases, does not give the expected results, i.e. deviation from the targets. This can be seen from the highest and lowest values of the Current ratio. The arithmetic mean shows liquidity of enterprises around twice the required, favorable level. It would seem optimistic median coefficient of total liquidity, if the variance was not so great. Given that the median is a positional average that takes the

numerical value of the unit, which is located in the middle of a ranked order statistics, it can be argued that its values would be useful in low dispersion. At high levels of dispersion, the median is not the same utility, which is for small values of dispersion.

In Figure 2 are the selected statistical values of the current ratio of 60 public companies traded on the Bulgarian Stock Exchange.

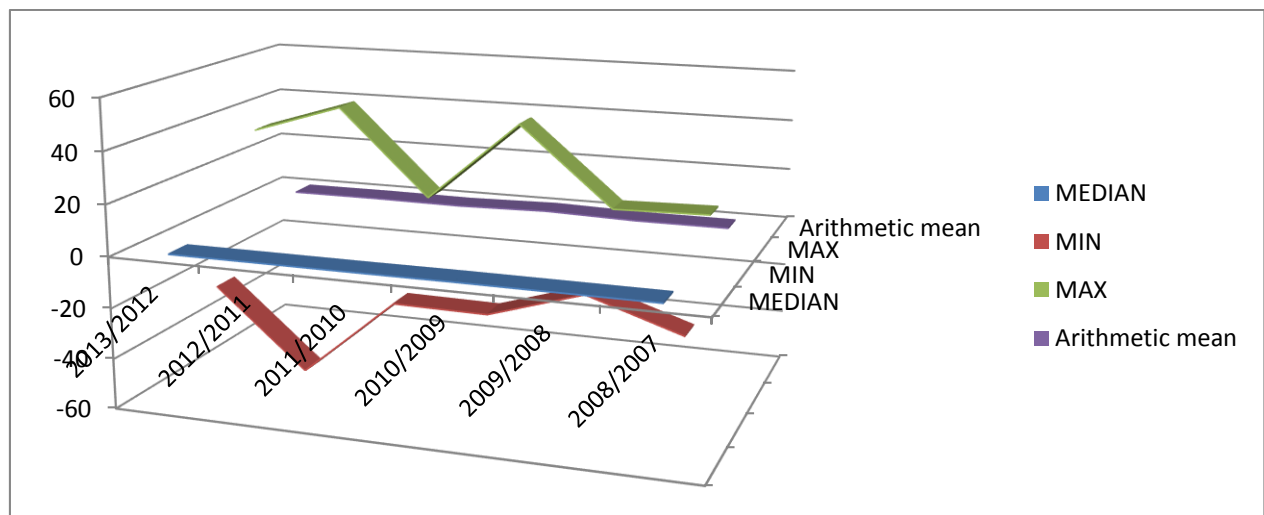


**Figure 2: Values of selected statistical values of the coefficient of total liquidity sixty Bulgarian public companies for the study period.**

**Source:** own calculations from the annual financial statements of companies.

Figure 3 presents the values of selected statistical parameters calculated on the basis of changes in the absolute values of the

current ratio of sixty Bulgarian public companies for the study period.



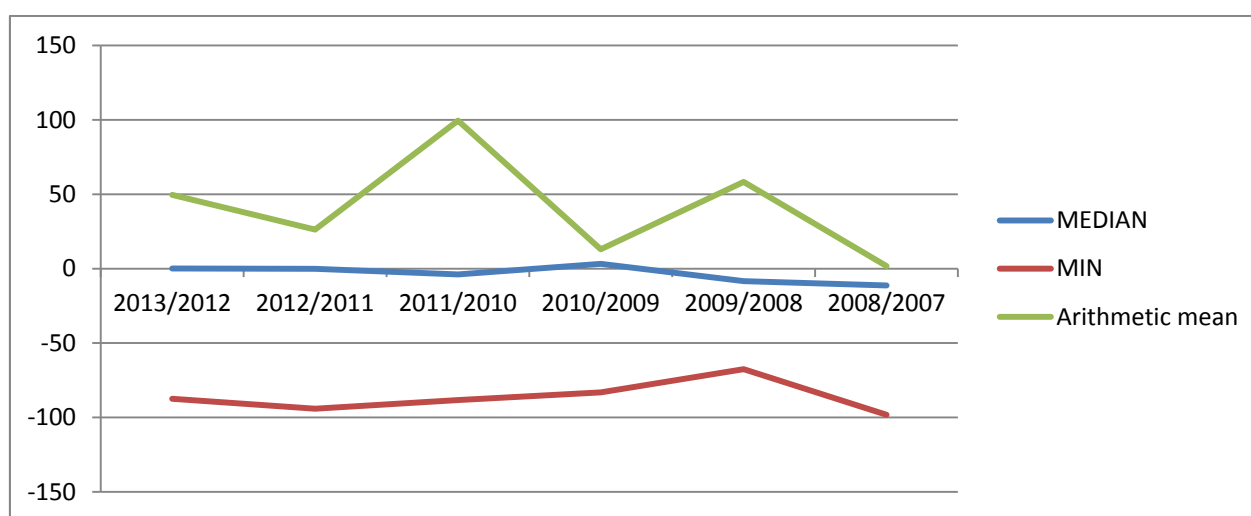
**Figure 3: Selected statistical parameters calculated based on absolute change of coefficient of total liquidity sixty Bulgarian public companies for the study period.**

**Source:** own calculations from the annual financial statements of companies.

Figure 4 presents selected statistical values calculated based on the percentage change of the coefficient of total liquidity sixty Bulgarian public companies for the study period.

Crucially, what is noticeable is the value of the largest percentage reduction in years. Impressed change obtained by comparison of 2008 and 2007, reaching -98.27037527%. Such a reduction can see the comparison of 2012 and 2011, which amounts to -94.18574603%.

Noteworthy comparisons between the remaining years of the reduction exceeds 83%. At least reduction in the coefficient of total liquidity notice when comparing the values of 2009 and 2008 median percentage changes in current ratio in recent years varies around values close to zero, but we see a number of its variations in the period from 2007 to 2009 averages of the percentage changes in current ratio throughout the studied period is positive. Impressed by the high values obtained when comparing 2011 and 2010.

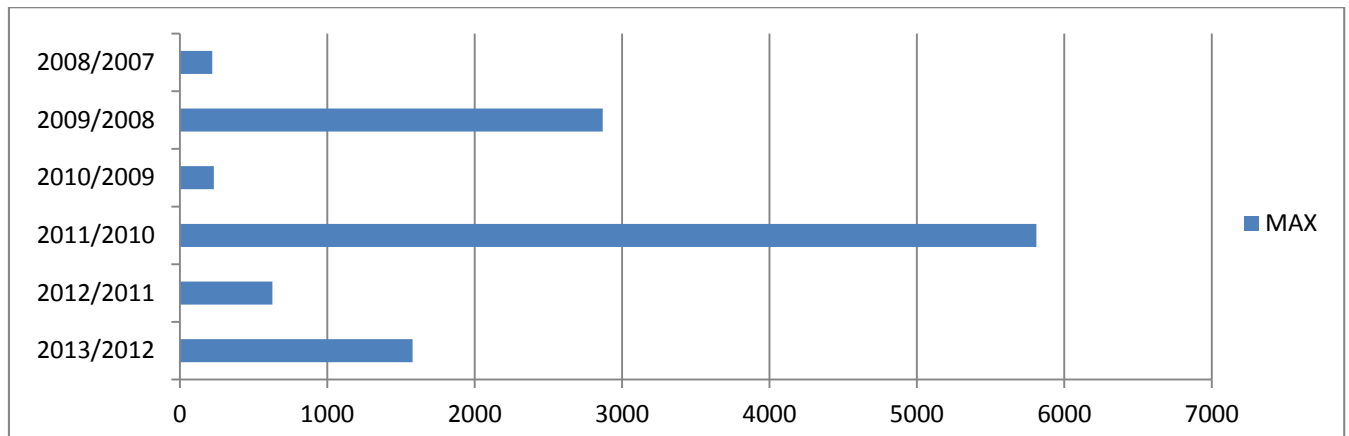


**Figure 4: Selected statistical parameters calculated based on the percentage change of the coefficient of total liquidity sixty Bulgarian public companies for the study period.**

**Source:** own calculations from the annual financial statements of companies.

Large fluctuations in the values of the current ratio can be seen Figure 5. I can not notice the increase in the percentage ratio of total liquidity as compared to the values of 2011 and 2010 values This is an increase of 5811.111111%. Such fluctuations in current ratio can not but arouse thoughts of management. Moreover notice that amendments to current ratio of over 1000%, a

total of three - 5811.111111% respectively, and 2868.703704% 1578.571429%. Other periods are characterized by increases in the maximum current ratio of 628% 230.7744011% and 219.3576507%. Should be carefully monitored performance of the enterprise to be adjusted when necessary and for a purposeful policy on liquidity management.



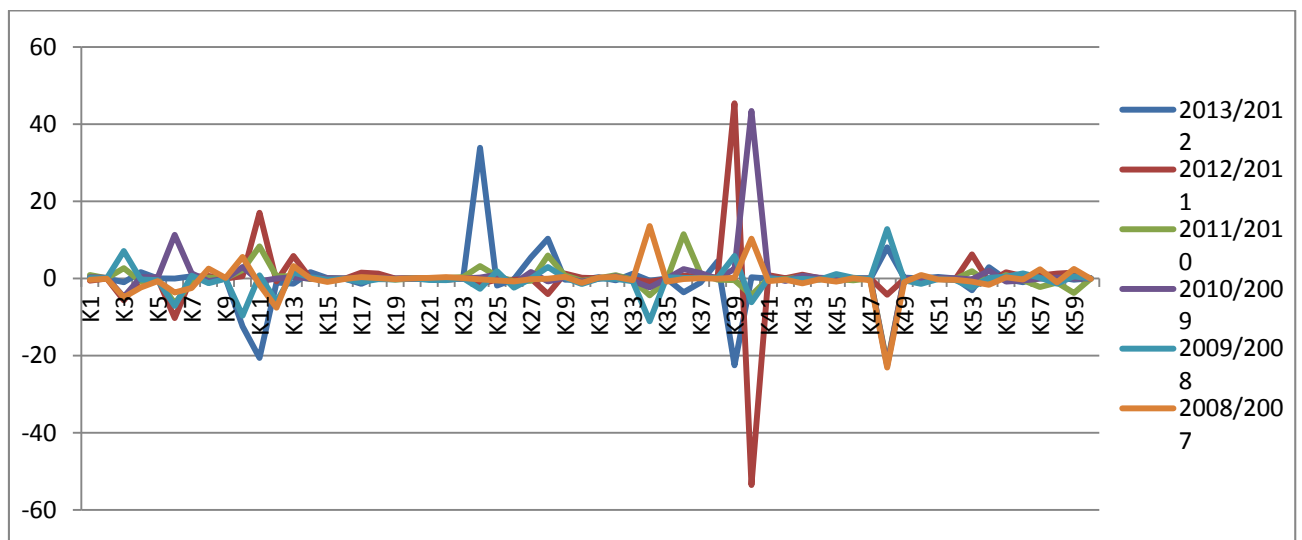
**Figure 5** The greatest percentage change in the coefficient of total liquidity sixty Bulgarian public companies for the study period.

**Source:** own calculations from the annual financial statements of companies.

It is crucial to determine the impact of factors that affect the current ratio. In general, these factors are current assets and current liabilities. The analysis of the influence of factors on the current ratio can be enhanced by examining the influence of each type of current asset or any kind of liabilities on climate current ratio. Thus it can be established for each factor separately how influential, i.e. to see if the factor is impacting upwards or downwards the value of the current ratio. Often one factor to influence upwards the current ratio, but another factor to impact more strongly on the ratio of total liquidity but downwards. In this situation, the financial

manager must decide what to do to correct the current ratio. Often expectations may be that the factors which affect in the same direction, which is very wrong. In optimizing the values of the factors financial manager may take the wrong decision, if not well-known effect of individual factors on the overall change in current ratio. This could exacerbate the problems, but when it becomes a continuous process can seriously harm the company.

Cumulative effect of change of climate factors on the current ratio represents the change in the rate, which can be represented by Figure 6.



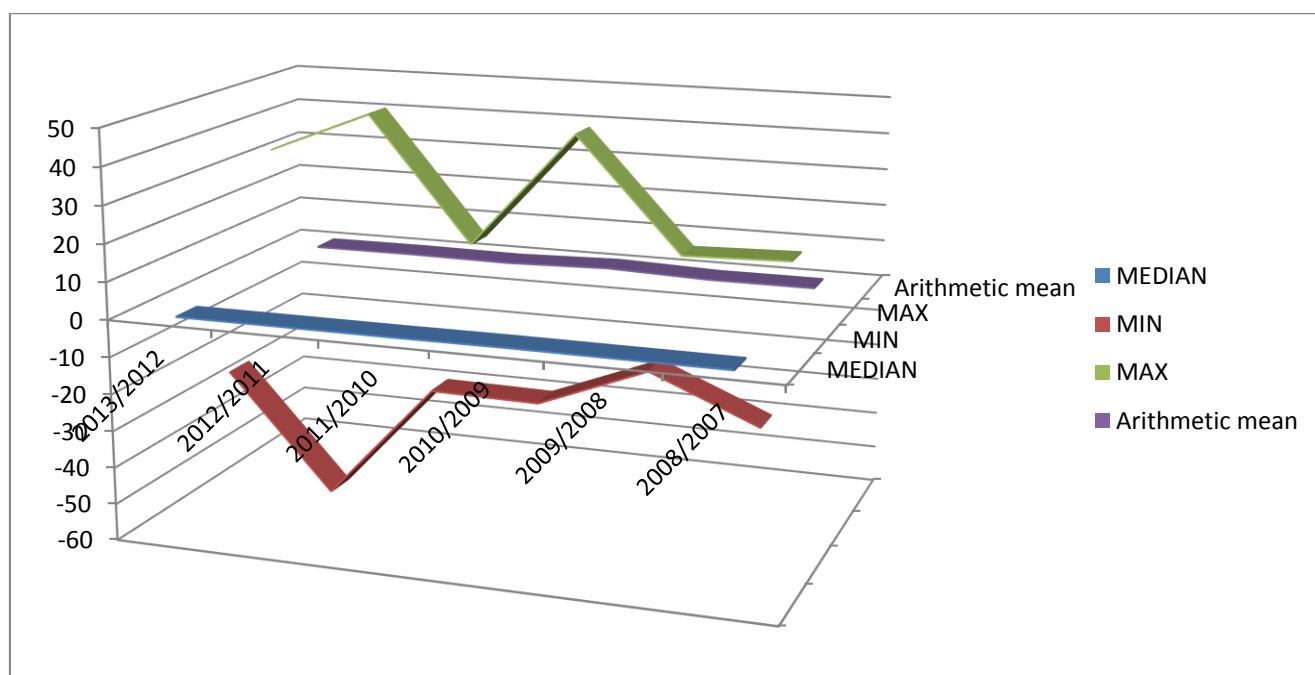
**Figure 6:** Absolute values of the impact of climate change on the current ratio of sixty Bulgarian public companies for the study period.

**Source:** own calculations from the annual financial statements of companies.

From Figure 6 we see that there are companies in which changes in the current ratio are small in size, but there are those in which changes in the current ratio are large in size. Deviations from the coefficient of the current year compared to the previous year as upwards and downwards on the current ratio.

From Figure 7 reveals that the average of the climate's current ratio has values close to zero, whereas positive and negative values of

the average of the current ratio. The greatest variation is seen in 2010, when the average of the coefficients of sixty Bulgarian public companies is 0.600816864. The median change current ratio has values that are close to zero, ie show less Deviation. Can not help but notice the biggest increase in the values of the current ratio and the largest decrease in the values of the current ratio for 2012, which amounted to 45.43976713 and -53.53786487.



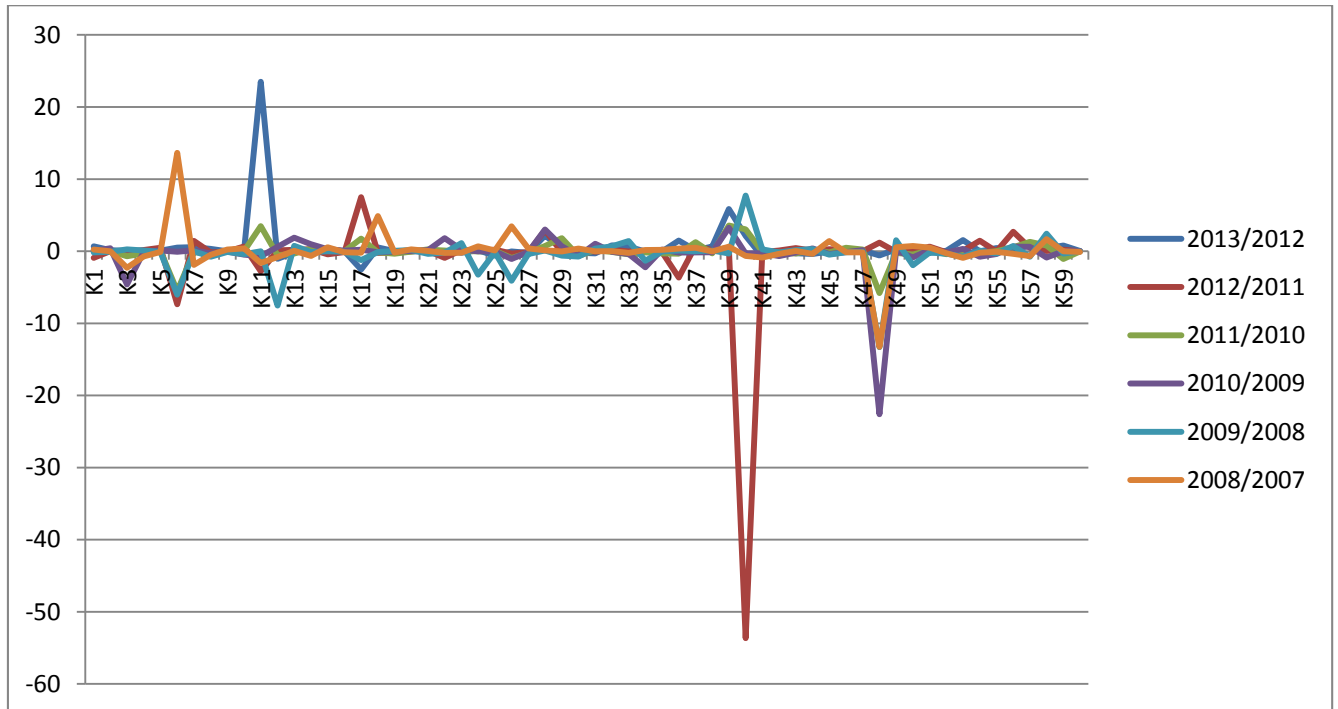
**Figure 7** Values of selected statistical variables summarizing the absolute values of the impact of climate change on the current ratio of sixty Bulgarian public companies for the study period.

**Source:** own calculations from the annual financial statements of companies.

The influence of the absolute change in current assets on the absolute change in current ratio is presented in Figure 8 In some companies in a given period the impact of current assets is zero, i.e. they are not influenced climate current ratio. In other companies the impact of current ratio is essential. It can be seen when comparing the

values of current assets in 2013 and 2012 for enterprise K11, establish the influence of current assets in the direction of increase in current ratio of 23.5. Comparison of the values of current assets in 2012 and 2011 for enterprise K40, establish the influence of current assets in the direction of a reduction in current ratio with -53.66197183.



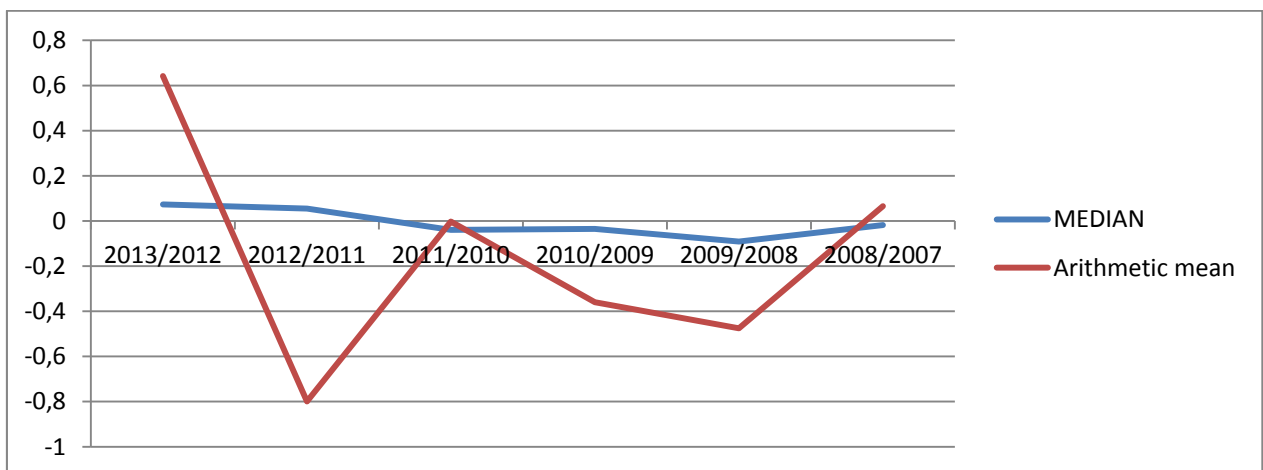


**Figure 8: Absolute values of the impact of changes in the stock of short-term assets on the change of the coefficient of total liquidity sixty Bulgarian public companies for the study period.**

**Source:** own calculations from the annual financial statements of companies.

Figure 9 presents the median and arithmetic mean summarizing the absolute impact of changes in the stock of short-term assets on the change in current ratio sixty Bulgarian public companies for the study period. From Figure 9 it can be seen that the median values is close to zero, i.e. shows less

influence of the change in the stock of short-term assets over current ratio. The arithmetic mean indicates greater volatility than the median. Average of the impact of changes in the stock of current assets value changes from -0.799316515 of 0.641853004 two consecutive comparisons.

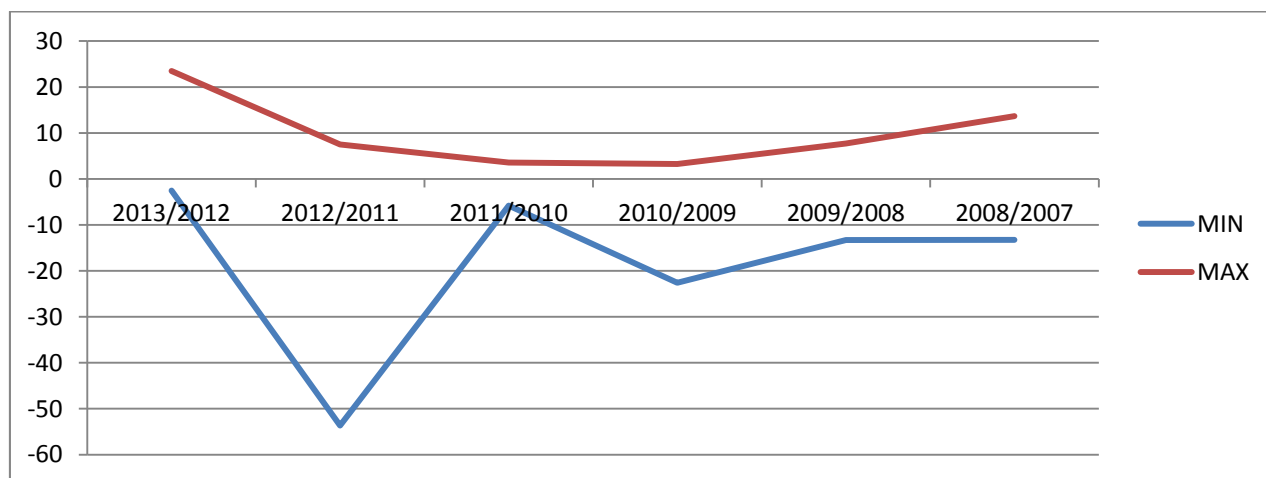


**Figure 9 Values of the median and arithmetic mean summarizing the absolute impact of changes in the stock of short-term assets on the change in current ratio sixty Bulgarian public companies for the study period.**

**Source:** own calculations from the annual financial statements of companies.

Figure 10 presents the values of the largest positive and the largest negative impact of changes in the stock of short-term assets on

the change in current ratio sixty Bulgarian public companies for the study period.

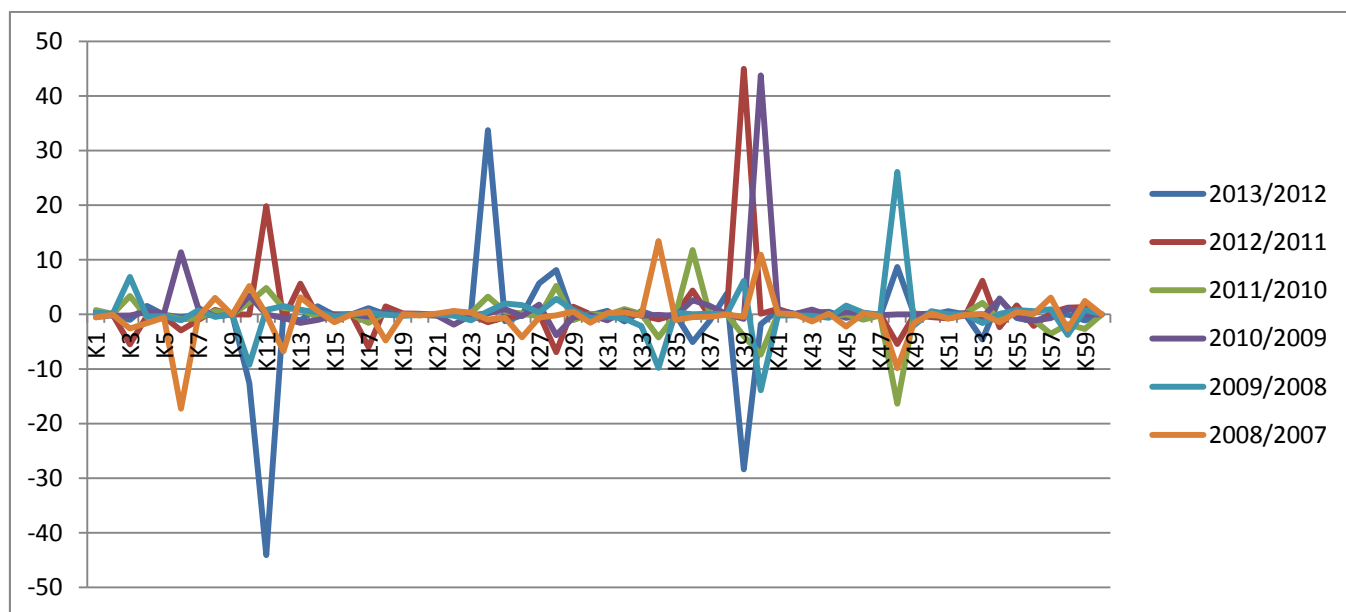


**Figure 10** Values of selected statistical variables summarizing the absolute impact of changes in the stock of short-term assets on the change in current ratio sixty Bulgarian public companies for the study period.

**Source:** own calculations from the annual financial statements of companies.

The influence of the absolute change in current liabilities on the absolute change in current ratio is presented in Figure 11 can be seen that the greatest positive impact of changes in current liabilities on the current ratio has an establishment K39 when comparing 2012 and 2011 with a value of

44.97872817. The biggest negative impact of changes in current liabilities on the current ratio has an establishment K11 when comparing 2013 and 2012 with a value of -44.1. There is a very large dispersion and standard deviation of the impact of changes in current liabilities on the current ratio.

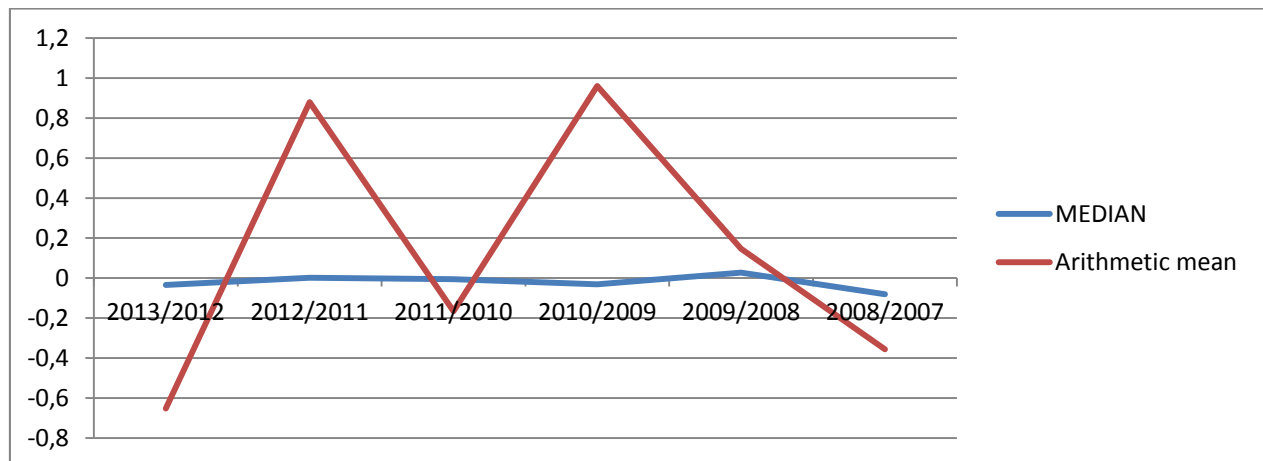


**Figure 11** Absolute values of the impact of changes in the stock of short-term liabilities on the change in current ratio sixty Bulgarian public companies for the study period.

**Source:** own calculations from the annual financial statements of companies.

Figure 12 presents the values of the median and arithmetic mean summarizing the absolute impact of changes in the stock of short-term liabilities on the change in current ratio sixty Bulgarian public companies for the study period. The median values is gushing to zero, indicating little impact on short-term liabilities Current ratio. The arithmetic mean

indicates more serious changes, i.e. greater influence on short-term liabilities Current ratio. Impact of changes in the stock of short-term obligations on climate current ratio is entirely due to the impact of trade and other payables on the absolute change in current ratio, i.e.absent the influence of other current liabilities on the change in current ratio.



**Figure 12 Values of the median and arithmetic mean summarizing the absolute impact of changes in the stock of short-term liabilities on the change in current ratio sixty Bulgarian public companies for the study period.**

**Source:** own calculations from the annual financial statements of companies.

#### 4. Conclusion

Small fraction of enterprises achieve this balance between different types of current assets that is most favorable to them. Low levels of liquidity are not appreciated because now may experience difficulties in repayment. However, it should be noted that any company needs a different amount of current assets. Financial managers are aware that excessive liquidity company is not a good testimonial for their work as there is excessive retention of funds that can and should be invested in the business, which brings higher returns. In the analysis reveals that the amount of companies that fall into different groups, is close in value. This indicates that overall policy on liquidity management in most cases, does not give the expected results, i.e. deviation from the targets. This can be seen from the highest and lowest values of the current ratio. The arithmetic mean shows liquidity of enterprises around twice the required, favorable level. Optimistic would look the median values of

the total liquidity if the variance was not so great. The financial management of the companies surveyed had worked towards improving the state of the enterprise, thereby seeking to reduce liquidity risk.

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## THE IMPACT OF OIL POLLUTION OF THE MARINE ENVIRONMENT

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**Abstract:** Water is a unique component of nature, without which one can not imagine the origin and existence of life, while the well, which can be disposed of and that can be cashed. Oil and its derivatives are often pollute the waters of the sea and the ocean, directly in the exploitation and transport, and indirectly, processing and use. Oil is the energy on a large number of technological processes, as well as the raw material base of the organic chemical industry, and in addition large quantities of petroleum products consumed as fuel for motor vehicles. This wide and varied use of oil makes an important raw material and potential water pollutants seas and oceans.

**Keywords:** sea and oceans, oil, pollution, adverse effects, remediation.

### INTRODUCTION

It is well known that water is one of the basic conditions for life on our planet, because it is necessary for the performance of all the vital processes in the biosphere, has a role in the exchange of substances in the human body.

Contamination of drinking water and determining the extent of its contamination numerous microbiological and physical agents and a variety of chemical substances is becoming an increasing health and general social problem. Oil and its derivatives are often pollute the waters of the sea and the ocean, directly in the exploitation and transport, and indirectly, processing and use. Oil is the energy on a large number of technological processes, as well as the raw material base of the organic chemical industry, and in addition large quantities of petroleum products consumed as fuel for motor vehicles. This wide and varied use of oil makes an important raw material and potential water pollutants seas and oceans.

Water pollution of seas and oceans of oil and its derivatives has been a constant threat since the time when oil began to be used as fuel. Transport large quantities of oil waterway necessarily linked with the regular and more accidental pollution vast sea surface oil.

It can not be tolerated pollution that, in

the short or long term, poses a danger to human health or cause an adverse change in all aspects of the environment. The overall objective is to prevent or reduce, and ultimately remove, any contamination that has a negative effect on the environment.

### MATERIALS AND METHODS

On the surface of the earth the greatest amount of interconnected water is in the seas and oceans, of the 510 million km<sup>2</sup> of planetary surfaces occupy 70.84%, and the depth of them in several places significantly exceeds the highest mountain peaks on the continent. On land, the water is the dispersed state and occupies an area of 2.5 million km<sup>2</sup>, of which over 2 million km<sup>2</sup> are freshwater. In relation to the seas and oceans, the amount of fresh water is small and located only 0.4% of the planet's surface, or 1% of the land.

Seas and oceans cover more than two-thirds of the Earth's surface. The most important features of seas and oceans are:

- salinity and ocean - average about 35 parts per thousand;
- spans 360 million km<sup>2</sup> of the globe (70.8% of the area);
- The total volume of the seas and oceans is 1368 x 10<sup>6</sup> km<sup>3</sup>;
- 11 times a većuzapreminu of land above sea level;
- Weight - about 1419 x 10<sup>18</sup> t;
- The average depth of 3800 m, a mean height of land 875 m;
- The biggest measured depth exceeding 11,000 m (valley Challenger) and is located in the Mariana Trench (Pacific Ocean).

The importance of the sea and the ocean is huge and is reflected in the following:

- moray oceans have a large heat capacity - accumulators of solar energy - impact on Earth's climate;
- Seas and oceans are a major food

producers is estimated to be from the sea could be used

3 times more food than it is now necessary to feed the population;

- Phytoplankton - manufacturers of oxygen;
- Seas and oceans are the largest and cheapest transport routes and corridors;
- Seas and oceans have the properties of self-purification, and auto-purification to a certain extent - it was believed that the oceans and seas "trash" because of the large carrying capacity - the most vulnerable as bays, estuaries, 'closed' and semi-closed sea of low tidal amplitude (Mediterranean ), and
- Marine organisms have a high tolerance to gradual changes in the environment (through adaptation, acclimatization and evolution) - however, it can not be misused.

Seas and oceans play a crucial role in preserving the environment its impact on the climate and providing balance global hydrological system.

Today, the word ocean is increasingly associated with the exploitation of food, mineral and chemical raw materials and energy sources. At the bottom of the seas and oceans are copper, natural gas, coal, gold and diamonds. The oil riches of the ocean is estimated at 60 to 150 billion tons. In oceanic water has been found that more than 70 different chemical elements.

Seas and oceans are inexhaustible reservoirs of fresh water. In the waters of the seas and oceans they live thousands of edible

seaweed, shellfish, crabs and useful sisara. U marine plants are very important biologically active substances which are important raw materials for the pharmaceutical industry. In the sea water, and there is a significant amount of organic material that is formed primarily of bacteria or mortality has occurred planktonskih organisms. The mass of dissolved organic matter in seawater, several times greater than the mass of living matter, ie. all living organisms that inhabit the ocean.

Medium composition of ocean water varies slightly, as well as the composition of the troposphere, with which the water of the ocean in an ongoing relationship. Significant areas of the ocean were never continents, but they were always occupied with water. However, the water must occupy areas that were once or recently were continents and for this reason there is a close connection between the two in terms of chemical composition.

The seas and oceans is not only pouring huge amounts of fresh water in the form of precipitation, but is constantly flowing and numerous rivers and streams, with one underground sources, on the other hand. At the same time it is necessary to point out and in huge amount of water attached to underwater volcanic activity on the entire sea and ocean floor. This must cause chemical changes to ocean and sea water where it should be stressed that the process of moving away from the mainland takes far more.

Table 1 shows the elemental chemical composition (%) of the ocean and sea water.

**Table 1.** The elemental chemical composition (%) of the ocean and sea water.

Ocean		Sea		Ocean		Sea	
Element	Content	Element	Content	Element	Content	Element	Content
	Solid		Solid		Solid		Solid
	3,8-3,2		4,3-5,1		3,8-3,2		4,3-5,1
Cl	2,1-1,7	Cl	2,2-1,5 <sup>-1</sup>	Cu	1,45-3,0 <sup>-7</sup>	Cu	2,05-9,0 <sup>-6</sup>
Na	1,7-9,1 <sup>-1</sup>	Na	1,8-1,5 <sup>-1</sup>	Pb	10 <sup>-5</sup>	Ba	1,9 <sup>-5</sup>
O	2,0 <sup>-1</sup> -1,1 <sup>-1</sup>	O	3,1 <sup>-1</sup> -2,1 <sup>-2</sup>	As	8,0 <sup>-6</sup> - 2,6 <sup>-6</sup>	Li	1,0 <sup>-5</sup>

Mg	1,5 <sup>-1</sup> - 9,1 <sup>-2</sup>	Mg	2,2 <sup>-1</sup> - 1,6 <sup>-2</sup>	I	5,2 <sup>-6</sup> -5,0 <sup>-6</sup>	As	2,5 <sup>-6</sup> -3,8 <sup>-8</sup>
S	1,0 <sup>-1</sup> -6,8 <sup>-2</sup>	S	1,5 <sup>-1</sup> -1,2 <sup>-2</sup>	Ba	5,0 <sup>-6</sup>	Mn	2,3 <sup>-6</sup>
K	1,0 <sup>-2</sup> -2,8 <sup>-2</sup>	K	8,6 <sup>-2</sup> - 5,9 <sup>-3</sup>	Mn	4,0 <sup>-7</sup>	Mo	2,0 <sup>-7</sup>
Ca	6,4 <sup>-3</sup> -3,8 <sup>-2</sup>	Ca	6,6 <sup>-2</sup> -3,3 <sup>-3</sup>	Se	4,0 <sup>-7</sup>	Au	1,0 <sup>-7</sup>
Br	7,1 <sup>-3</sup> -4,2 <sup>-3</sup>	Br	5,3 <sup>-2</sup> -2,2 <sup>-4</sup>	U	2,0 <sup>-7</sup>	Ni	1,0 <sup>-7</sup>
C	4,8 <sup>-3</sup> -2,6 <sup>-4</sup>	C	6,6 <sup>-3</sup> -1,6 <sup>-4</sup>	Cs	2,0 <sup>-7</sup>	Ra	n <sup>-12</sup> -n <sup>-14</sup>
N	2,3 <sup>-3</sup> -1,0 <sup>-5</sup>	N	2,3 <sup>-3</sup> -1,0 <sup>-3</sup>	Ag	n <sup>-7</sup> -n <sup>-9</sup>		
Rb	1,4 <sup>-3</sup> -2,0 <sup>-5</sup>	Rb	1,6 <sup>-3</sup> - 2,9 <sup>-4</sup>	V	10 <sup>-7</sup>		
Sr	1,4 <sup>-3</sup> - 1,3 <sup>-4</sup>	Si	9,4 <sup>-4</sup> -1,3 <sup>-6</sup>	Ni	10 <sup>-7</sup>		
Si	8,0 <sup>-2</sup> -2,2 <sup>-6</sup>	P	5,8 <sup>-4</sup> -1,3 <sup>-7</sup>	Mo	10 <sup>-7</sup>		
P	5,3 <sup>-4</sup> -5,0 <sup>-6</sup>	H	3,9 <sup>-4</sup> -8,5 <sup>-5</sup>	Au	4,5 <sup>-8</sup> -4,0 <sup>-10</sup>		
Fe	5,5 <sup>-4</sup> -5,0 <sup>-6</sup>	I	2,4 <sup>-4</sup> -2,0 <sup>-6</sup>	Ce	4,0 <sup>-8</sup>		
Al	5,2 <sup>-4</sup> -2,0 <sup>-5</sup>	Zn	3,8 <sup>-4</sup> -2,0 <sup>-7</sup>	La	3,0 <sup>-8</sup>		
B	4,6 <sup>-4</sup> -4,0 <sup>-4</sup>	Fe	3,0 <sup>-4</sup> -4,0 <sup>-7</sup>	Y	3,0 <sup>-8</sup>		
Zn	3,1 <sup>-4</sup> -1,0 <sup>-7</sup>	F	3,0 <sup>-5</sup>	Se	4,0 <sup>-6</sup>		
H	2,8 <sup>-4</sup> -3,0 <sup>-6</sup>						
F	1,0 <sup>-4</sup> -3,0 <sup>-5</sup>	Hg	3,0 <sup>-9</sup>				
Li	1,75-7,0 <sup>-6</sup>	Ra	1,0 <sup>-12</sup> - 1,6 <sup>-13</sup>				

\* Were found more Bi, Ge, Ti, W, Su, Ga, Zr, Ms, Th and gases He, Ne, Ar, Kr, Xe, Rn.

Ocean water is a solution of inorganic substances with a concentration of about 3.5% (in addition to organic compounds and gases). Eleven of the basic (Na +, Mg<sup>2+</sup>, Ca<sup>2+</sup>, K +, Sr<sup>2+</sup>, Cl, SO<sub>4</sub><sup>2-</sup>, HCO<sub>3</sub>, CO<sub>3</sub><sup>2-</sup>, Br-, and F-) chemically active ions little sea water, and H<sub>3</sub>BO<sub>3</sub> are 99% by weight of the soluble compounds in the ocean. Sum of cations is slightly larger than the content of strong anions in seawater and is the so-called alkaline reserve, which determines the basic character of water (pH 7.6 to 8.6).

Suspended particles in the marine and oceanic water are terrigenous, biogenic and hydrogen origin. All surfaces continents are all the rivers in the oceanic environment annually

brings about 12,000 tons of suspended particles. A part of them is processed plankton, is deposited on a part of the bottom, and part of the solvent. Under the influence of aquatic organisms significant mass of suspended particles repeatedly reproduce the active aqueous layer.

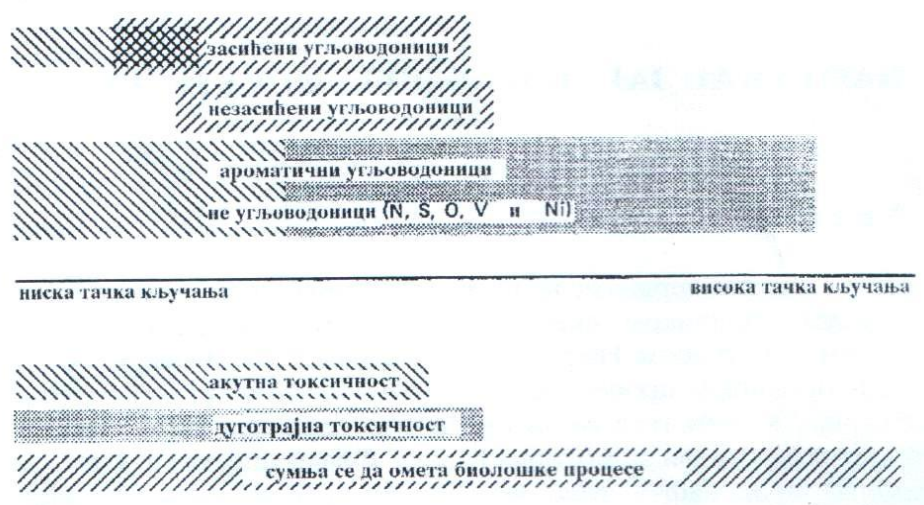
#### Properties and composition of crude oil

Oil is a liquid brown-green-black in color, lighter than water (density of oil is usually 0.7-0.9 g / cm<sup>3</sup>) and the chemical composition is a mixture containing thousands of compounds. Oil is a complex mixture of a large number of organic compounds, including various the most common acyclic, cyclic,

polycyclic, saturated aliphatic and aromatic hydrocarbons, the broad range of the boiling point, and smaller amounts of organic compounds of oxygen (2%), sulfur (0.15 to 6%) and nitrogen (0.05 to 0.4%), Figure 1 Chemical composition of the oil depends on its origin. So far, thanks to instrumental methods of organic analysis in oil identified more than 10,000 different compounds, many of which are highly toxic to wildlife, and their uncontrolled discharge into the waters of seas and oceans is the real dangers. Saturated and unsaturated hydrocarbons have acute toxicity, aromatic

hydrocarbons have long-term toxicity to wildlife and are the main carriers of carcinogenic properties of oil and its derivatives.

The toxic effects of the oil constituents are expressed mostly in the surface layer of sea water due to the fact that petroleum, as well as lighter than water, on a surface thereof, and the most concentrated. The consequence is that the wildlife that inhabits the surface layer most affected, while the soluble components of the oil are harmful to wildlife in the deeper waters.



**Figure 1:** Composition of crude oil and toxicity of its constituents

Oil containing predominantly saturated hydrocarbons (paraffins) is paraffin, oil was found in Pennsylvania. In the present bakuanskoj significant amounts of alicyclic hydrocarbons (naphthenes) and these are referred to as naphthene oil. There are aromatic oil containing plenty of aromatic hydrocarbons. Such oil from Romania and from Borneo. According to the composition of the oil to be divided into mild, moderate and severe, and there are other classifications, for example, oil with low and high sulfur content.

From oil reservoirs with oil comes out oily water, and there is more to the old field. The process of processing and refining of crude oil provides about 2,500 different products, of which the most important are petroleum, gasoline, kerosene, or kerosene, diesel fuel, heating oil, fuel oil, lubricating oil, tar or asphalt and more.

## RESULTS AND DISCUSSION

Water pollution of seas and oceans of oil and oil derivatives may occur:

- When researching bay and its exploitation (failure of the wells, the collection system may cause an explosion or fire);
- When transportation (tankers, tanks);
- During the processing and
- When consumption.

Oil spills during its transportation or facilities due to poor management almost always leads to pollution of the sea or inland waters. Such cases of oil pollution in the aquatic environment, either sea or freshwater, causing an ecological disaster. Table 3 shows the estimates of various sources of pollution of sea water in oil. Only in the waters of the

United States happens to 7,5 thousand unfortunate spill, and spills in harbors, caused

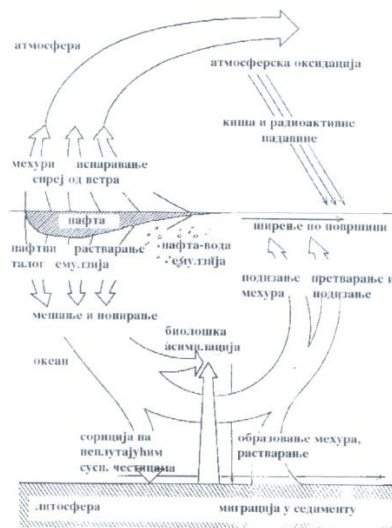
shock and repairs, and reached 100 thousand tons of oil spills per year.

**Table 2.** Sources of oil pollution of the seas and oceans

Million metric tons per year	
Laundry transportation of oil tankers	1,5 – 3
Cleaning oil sludge	0,5 – 0,5
Tanker spills	1 - 2
Spills of oil wells, pipeline and offshore storage	1 - 3
Industrial wastewater	1 – 1,5
Total	5 - 10
Natural hydrocarbons	1

Oil enters the water of the sea and ocean processes involving the atmosphere and lithosphere (Figure 2). Even when the sediment on the ocean floor received all the oil it can not

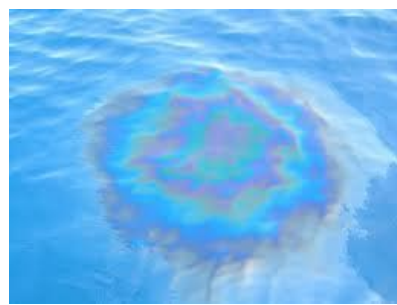
immobilize, but continues to expand until it pollutes large areas of the ocean floor. Oil is also very mobile within the biosphere which quickly enters the food chain.



**Figure 2:** Trends in pouring oil into the marine environment



Oil spill or oil pollution such pollution is caused due to the oil spill in the sea.



***Figure 3: Oil slick***

When oil spills into the sea, in contact with air, creating a thin scum that evaporates. However, due to the undulations, is linked to the oil and the water so formed. "Chocolate Foam" of dying animals in the coastal sand. On the sea surface, the oil is like an opaque film that prevents penetration of air and sunlight, which causes mortality of plankton, which are an important part of the food chain in the sea.

Seabirds suffer from tar that sticks to their feathers and prevents flying. Besides the effects on wildlife, the pollution and destruction catches of fishermen and beach, which leaves a thick layer of tar.

When the oil is poured into the sea, special ships are trying to suck up as fast, but in fact it only when the sea is calm. Applies to the burning of oil and chemicals, but that means more polluting. To recover from such pollution often takes several years because oil that has settled on the bottom of the can after a long time to reach the surface.

Oil that is poured on the surface exposed to the action of different physical and chemical processes of which the most important are: the process of expanding oil spills, evaporation, dissolution, sedimentation, biodegradation and photooxidation. Some substances will evaporate, and some lose photochemical oxidation. Each of these processes has its own speed and they all occur together, follow their dynamics. In doing so, the most significant impacts are properties of spilled oil and Meteorological conditions (wind, waves, currents, ambient air temperature, and

water). When it comes to the harmful effects of oil should be pointed out that they are very different. Stains of spilled oil prevents the penetration of sunlight, which reduces the photosynthetic activity of algae planktonskih prevents recovery of oxygen in sea water for which extinguishes life in the seas.

Oil detrimental effect on the offspring of different fish, the development takes place in the surface layer of sea water. If the oil does not cause mortality of young fish and fish in general, it affects their quality and taste, so that the meat becomes unusable for fish meal. It is particularly harmful effects of oil on seabirds because some petroleum fractions dissolve fine, protective fatty layer of feathers. Therefore, the feathers becomes permeable, thus reducing their protective thermoregulatory power, and they lose the function of the wings.

Crude oil also affects the physiological processes of living organisms, causing a variety of pathological changes in tissues and organs, and disorders of enzymatic systems of the nervous system.

Irrespective of liability for marine pollution, coastal states are obliged to prescribe plans for dealing with emergencies (eng. Contingency Plan). Such plans include lists of personnel, resources and competencies persists interventions, and are able to provide the scope of intervention in accordance with the spill risk assessment, the importance of the affected areas, the expected weather conditions and the type and amount of oil. You need to assess how the workforce needed to start and overall

cleaning, space for appliances and cleaning products as well as of temporary storage of waste oil. It may happen that the launch operations of cleaning was unnecessary when there is a possibility that the oil spill will be taken currents away from environmentally sensitive areas, such as fishing areas, coral reefs and wetlands, particularly the socio-economically vulnerable hatcheries, fish farms and shellfish, harbor areas, the main line of maritime transport, beaches and residential areas, or that they will naturally decompose before they close.

Responsibility for the control of oil spills at sea usually is the responsibility of government agencies involved in maritime activities, such as coast guards and naval military forces.

#### **The effects of oil on wildlife**

Impact of oil on the water, either sea or freshwater flora and fauna depends on the

composition and concentration of oil. Oil floating on the water surface may endanger their physical properties and plants and animals because it prevents photosynthesis, respiration and feeding. After the oil spill aromatic hydrocarbons cause immediate death of many organisms. After a few days they evaporate, and the oil remains in the balls which after a few weeks or months destroyed the natural processes of biodegradation while operating a bacterium (*Pseudomonas*, *Mycobacterium*, *Nocardia*), fungi (*Candida*, *Cladosporium*) and algae. As a result, the reduction of the amount of oxygen in the sea, due to a disturbance in the flow of.

Droplets of oil blind for bird feathers or fur of aquatic mammals and prevent thermoregulation and natural ease and power floating. Animals can choke or poison swallowed up oil after attempting to clean their fur / feathers. The eggs and hatchlings are particularly sensitive to any toxic substances that are oil-soluble.



Figure 4. Adverse impact of oil on birds



Figure 5: Adverse impact of oil on fish

Effects on marine or freshwater ecosystems differ with respect to the impact of various factors such as the biological and physical characteristics of the bottom area where there has been a contamination, season and weather. The worst effects of the environment occurs when the oil slick finish on the coast.

Oil generally stimulate the growth of heterotrophic bacteria that use hydrocarbons. The effect of naphthenes algae is much less than the negative of the other organisms, although they are very sensitive to effects such

as an increase in Secondary level of primary production (increase in the amount of nutrient salts because of decomposition of dead organisms) which can lead to a rapid reduction of oxygen concentration in the water.

There are three types of aquatic plants: *Lemna gibba*, *Lemna minor* and *Lemna perpusilla*. Attempted to determine the effect of different substances in different oils. It turned out that they were tolerant of crude oil, synthetic oil, however, were very toxic even at very low concentrations.

On petroleum hydrocarbons are sensitive and more plants, since they reduce the level of photosynthesis by altering the permeability of cell membranes or absorb light necessary chloroplasts.

We tested the toxicity of various oil products in several algae, invertebrates and fish. The test substances were as follows: two phenol, two lists and the two polycyclic aromatic hydrocarbons. Snails showed less sensitivity of arthropods, and fish are less sensitive than invertebrates. In each pair of the toxicity of substances was higher as the number of rings in the compound was higher (e.g.. B-naphthol (two rings) was 45 times more toxic to the type of Gammarus less than the phenol (single ring)).

A short-tests on fish were obtained interesting data: aliphatic hydrocarbons are mainly caused less effect, on the contrary cyclic hydrocarbons were toxic (that is associated with an increase in unsaturation of such compounds).

Fish easily receive hydrocarbons through the gills, but when put in fresh uncontaminated water, and things quickly disappear, indicating a metabolic ability of fish to remove hydrocarbons from the body.

Amphibians are relatively sensitive to petroleum products due to the thin and porous skin. Experiments was found to increase the concentration of motor oil has no effect on the eggs of frogs (*Hyla cinerea*), while tadpoles showed great sensitivity. Negative effects of petroleum and its derivatives birds are numerous: hypothermia caused by gluing feathers disorder in ionic equilibrium, dehydration after swallowing oil, changing their behavior and egg production due to which the growth rate changes.

The bird does not have to show direct symptoms of poisoning, but the toxic substances can accumulate in the egg and prevent fertilization or embryo development. When the eggs of wild ducks after wearing coated with 10  $\mu$ L of oil not one duck was hatched. At lower concentrations were happening many deformities of the embryo: liver damage, deformation of the beak, bones and digestive system. The effects of oil on mammals were studied for two years after the

Exxon Valdez disaster, the population of river otters (*Lutra canadensis*) living in the coastal area. Population of otters in the area affected by the oil were reduced three times, and the blood of these animals were found in increased amounts haptoglobina and interleukin 6, which indicates possible damage to the immune system. This could lead to imunodeficiency and susceptibility to disease long after the disappearance of oil. Because of the mutagenic and carcinogenic properties of the individual components of petroleum products, pays great attention to their role, especially when they get near the water intake. Prove the connection between cancer and the degree of contamination of the ground is very hard. Therefore, it takes more work to be able to assess the real risk to freshwater communities, but also for people. Although the pollution of fresh water in oil often occur and cause the death of aquatic animals and plants, are some adequately studied and istražena. Guiney et al. 1987. studied the impact of spilled kerosene in a small river in Pennsylvania. Benthic arthropods and fish are immediately dead. Recovery began six months after the accident, and ended up 6 months after the start. Factors that accelerate recovery were: fast and efficient cleaning, abundant unpolluted water, drift invertebrates and migration of fish from unpolluted areas. Impact of oil on the marine flora and fauna depends on the composition and concentration of oil. Larger quantities, except that mechanical destroying organisms that live near the surface of the sea (especially microorganisms, developing forms), multiple adverse effect on marine life. Due to the high concentration of organic substances, poured oil into high biological activity. Comes an explosion of bacteria, which is the basis for the further life of the unnatural proliferation disorders in the chain higher and lower organisms. There may be a genetic disorders in marine organisms. It is estimated that the world must annually reaches approximately 2.3 million tons of oil and its derivatives. Although the tanker incidents known, they represent only a small fraction of the pollution of the sea by oil (12%). By far the largest source of oil pollution of the sea represent a direct or indirect pollution coming from land (59%). One of the oil naturally breaks out in the ocean at the ends of the tectonic plates (7.7%).

The fight against oil pollution is very complex and fraught with many uncertainties.

□ oil spills, it is possible to localize or collected by mechanical means if the proper equipment is available.

□ An oil spill can be incinerated but it is very often too thin or fragmented in order to apply this method of removing petroleum pollution. However, the disclosed methods of using porous materials which have absorbed oil order to reach the appropriate concentration for combustion. When an oil spill in the sea, the French waste oil on their particle size and is somewhat isolated from sea water.

□ In an attempt to grades of oil stains were used detergent, as in the case of disaster Torrey Canyon. The British were the attempts made to break, petroleum stain spilled oil used huge amounts of detergents (95,000,000 L). These amounts of detergents are more deteriorating situation of marine flora and fauna and failed to remove the pollution, but it intermingled and spread through the aquatic environment.

□ method is microbiological degradation of oil but this method has four drawbacks:

a) the spores;

b) imposes an enormous oxygen consumption (one cubic meter of crude oil requires all the oxygen dissolved in 320 cubic meters of air saturated seawater);

c) it can be affected by environmental conditions such as low temperature and low oxygen concentrations and can be omatena presence of pollutants such as heavy metals;

d) it is a selective process, and least effective in the majority of the toxic components of oil.

Pollution seas and oceans of oil is a problem that science can have a big impact. The presence of oil spills in seawater can be determined by infrared spectro-radiometer. Characterization of oil as a contaminant in the water, as well as monitoring its fate is done, more precisely, following several guests from different fractions of oil, and it's all possible thanks to modern instrumental methods such as gas-chromatography (GC) and gas-

chromatography-mass spectrometric (GC-MC) analysis and flame-spectrophotometry.

## CONCLUSION

In order to be as much as possible today to prevent unwanted incidents spill oil or its derivatives, it is necessary to prepare in advance the appropriate action strategies. Activities under such strategies are divided into preventive and operative.

The best answer to the question of how to solve the problem of the oil spill, its prevention. Today, it takes care of it to produce more oil and natural gas with minimal impact on the environment. Some of the solutions are:

□ Thanks to modern technology, directional drilling can be a safe place to travel to the oil and gas where those resources are located below the water surface;

□ They are research prior to operation in order to determine the potential negative impacts on wildlife and

□ International maritime Organization adopted a rule that all tankers must have double bottom and horizontally divided cargo Operating activities include the immediate cleaning procedures resulting pollution. These procedures are divided into procedures that are carried out on the water and those who, after the oil reaches the shore, carried out on the land. Applied techniques for these two cases differ significantly. The proper approach to each of these methods requires planning and good knowledge of the phenomenon of pollution - physical and chemical impacts, biological impacts of pollution, as well as the features and capabilities of existing equipment and available cleaning agents.

To as much as possible reduce the harmful effects that result from unwanted oil pollution in most countries in advance to prepare operational plans for intervention. Classical methods for cleaning oil include fencing floating fences after which the oil is removed from the surface of the water with your rake, networks and the like. The remains were removed by absorbing resources such as

vegetable or synthetic fibers. These fibers can absorb and retain the amount of oil as much as 150 times higher than their own weight.

The use of chemical dispersing agents is undesirable because of the high toxicity. These agents are used for the dispensing of oil, but it contains the active substance to increase the permeability of membranes of organisms. Sometimes the combination of oil with a dispersing agent more toxic than the oil itself. Also, these funds are relatively expensive and require larger quantities to achieve the cleaning results.

In-situ burning is a technique of burning large amounts of oil from the water surface, and depends on many factors: the potential toxicity from contaminated areas, the results of the clouds of smoke, the composition of the oil, the fate nespaljenih remains. For this technique it is necessary that the thickness of oil slicks to be 2-3 mm due to the cooling effect of wind and water. Because of the smoke produced by burning the rain may occur with the same ingredients and up to 80 km away, and is also known case of a mass evacuation of people for the same reasons. Great danger is that the remains of burning poison benthic species and fish.

Today, the most effective method of biodegradation. Namely, the crude oil as well as many of the natural substances are broken down into simpler constituents such as carbon (IV)-oxide, water and biomass. The term biodegradation mean the ability to degrade under the influence of biological activity. This ability to 21 genus of bacteria, 10 genera of fungi and 5 genera dance. Full degradation occurs if the microorganism used hydrocarbons such source of energy and carbon. The stirred community of microorganisms can be degraded as much as 97% of crude oil, provided that the first degrade aliphatic hydrocarbons,

heterocyclic and then only at the end of the asphaltenes. Microorganisms generally break down complex compounds to simpler forms, which is very important because the complex aromatic compounds steadier why stay longer in the environment. Nowadays, there are specially modified strains of bacteria that are multiplying the not cleared surface. Those species in a relatively short period of time almost completely degraded oil (add and nutrients), and then die due to lack of substrate. Unfortunately many oil companies do not use such methods because they are more expensive (though more effective than traditional methods).

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## TRANSNATIONAL CORPORATIONS

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**Abstract:** The rapid development of the globalization of business has caused an increase in competition in the international market. Number of organizations different forms be increasing according to the development level of the business. Multinational companies are all companies that operate on the principle of equity investments from several countries and have control over the property for at least two or more countries. These organizations have a well-developed network of its own branches which are located around the world, through which they control the production, distribution of goods and services. Global companies - terminology under this name is first mentioned in literature in the early 90's. Global companies implement a global strategy that treats the whole world as one market and act in terms of strengthening the forces of global integration and national responsiveness pad.

**Keywords:** *Transnational Corporations, globalization, role, impact, development.*

### INTRODUCTION

Due to increasing globalization, it is necessary to classify participants in the global market, in order to be a clearer picture of the relationship between the actors of the global market.

Organizations that are present on the world market are classified according to (O'Brien,2000):

- The level of market engagement
- The size, assets, income, profile, sales, employment and the like.

Starting from a possible approach and the level of market engagement, Keegen performed the classification of companies on the: national, international, multinational, and global

transnacional (Scholte, 2000). However, in this classification, which is characteristic of the Anglo-Saxon area of most uncertainty relates to multinational enterprises, as this term covers a very broad range of participants in the international market, ranging from national to multinational companies.

However, if we ignore this view of things, it gives us the opportunity to accept the classification of event organization, which is now widely accepted in most parts of the world. We distinguish the following forms of enterprise: national company bases its activities on the domestic market; export company is a national company that sells products to the international market through their subsidiaries or perform licensing technology for use abroad; company of an international character, performs its activities in domestic and foreign markets. The road leading from the international and national export oriented companies. International company based its strategy of growth and development on the equal treatment of national and international markets, doing their activity simultaneously in both. For these companies size does not matter on the market. For a positive opinion on the operating conditions, with the once favorable conditions are in international than in the domestic market; transnational companies base their business on the capital of a country which is represented in several countries. Transnational companies operating in one to five countries, and has three of the five branches; and the branches participating by 5 - 15% of the total sales volume. Transnational companies are characterized by greater decentralization of control of the business, and that their leaders do

not just recruit from the company's headquarters.

### **1. Definition and development of the transnational companies**

The development of transnational companies are associated with colonial or imperial countries of Western Europe, or England and the Netherlands that have achieved economic and military dominance even in the sixteenth century and successfully held them up to the present day. During this period the company British East India Trading Company was established in order to promote trade activities and the territorial acquisitions in the host countries of the Far East, Africa and America. TNC that we know today, however, are not made in the nineteenth century, in the period of industrial capitalism, but in the period of the development of large factories, large initial capital production processes, information technology and communication development. During the nineteenth and early twentieth century TNC looked for raw materials, fuel and other resources to ensure smooth operation and protection of the increasing pressure from foreign competition, and companies in the United States and Western Europe. Among the many economic factors that promote globalization, the role of transnational corporations (TNC) is of particular importance.

TNC are companies that produce goods and services in more than one country. It may be a relatively small company with one or two plants outside the state in which their headquarters are located, or the giant international ventures whose business operations are spread across the globe.

Some of the largest TNCs are well-known companies in the world: Coca-Cola, General Motors, Colgate-Palmolive Company, Kodak, Mitsubishi, and many others. Even when TNCs have clear national lines, oriented to the global markets and global profits. Transnational companies are located in the center of economic

globalization: they make up two-thirds of world trade, they are actors diffusion of new technologies throughout the globe, and the main actors in the international financial markets. Over 400 TNCs had annual sales revenue of over 10 billion dollars in 1996., While at the same time only 70 countries could boast of gross national income (GNI) in the amount of these numbers. In other words, the leading transnational companies are economically stronger than most countries in the world (Zečević / Stojanović, 2001).

TNCs have become a global phenomenon in the years after the Second World War. The expansion in the early postwar years came from companies having their headquarters in the U.S., but from 1970., European as well as Japanese companies have begun to invest abroad. In the late eighties and nineties, TNCs have dramatically expanded the establishment of three powerful regional markets:

- Europe (Single European Market)
- Asia and the Pacific (Osasco declaration guaranteeing the free and open trade by 2010.) and
- North America (NAFTA – North American Free Trade Agreement).

Since the early nineties, the countries in other parts of the world have liberalized restrictions on foreign investment. By the beginning of the XXI century, there were few economies in the world, which remained out of reach of TNCs. During the last decades, transnational corporations based in industrialized economies are particularly active in expanding its operations on the developing countries and societies of the former Soviet Union and Eastern Europe.

#### **1.1. Corporate capitalism**

Its global power transnational companies realized through control of three major markets: the market for goods and services, financial markets and market information. In this way, in addition to economic processes, controls and uneconomical processes, such as the political,

cultural, ideological, etc. This explains why the transnational companies do not hesitate to take whatever they consider necessary to protect their monopoly interests and convince the world public that the economic, as well as any other war, legitimate means to protect free trade, free flow of capital, knowledge, people and all else that contributes to increase profits. Behind the powerful transnational companies are their powerful nation-states, which are always ready to support them in a “holy mission of globalization”, if necessary by armed force.

Under these facts should ask the most important reasons to resist the presence of TNCs in developing countries, even if it is for economic reasons is welcome. As a positive effect of the presence transnational companies, as the “engine” of economic growth in the countries of the so-called. Third world, most often cited new “fresh” capital in the form of direct investment, without which there can be no economic growth; new technology, without which no progress is possible in raising product quality, competitiveness, structural changes, etc.; increasing employment, and unemployment, when running technological modernization, or during so called undertaking when taken close domestic enterprises; increase exports and foreign exchange earnings needed to service external debts and the new import.

At the beginning of XXI century, transnational companies controlled directly or indirectly, two – thirds of world production and trade, and three – quarters of international technology transfer. The high concentration of industrial and financial capital threatens to next year reached such a degree of economic and financial power to be able to effectively control the state institutions, and even the institutions of the international community. In this way created a new quality of capital whose logic is no longer tied to their country than for the system as a whole. Corporate capital produces new socio-economic system: corporate, and predatory capitalism. Such a transformation of property relations is the conversion of

individual ownership in the group, or the ownership of productive groups and unions, which are again national boundaries become too narrow for the further development of the productive forces. Of globalization are undermining the classic state – the nation and there is a new type of capitalism that “decorates“ unlimited expansion.

This aggressive capitalism, some theorists called turbocapitalism because has a universal logic of privatization with the help of modern technology, especially computer. Therefore, many countries are faced with an unavoidable question of economic defense of turbocapitalism. One of the most important measures is the application of a novel concept of espionage because of the lack of information or an information gap in modern society, no one to blame for all his problems.

## **1.2. Global empire**

Great power, in order to achieve their interests often use economic means of pressure and blackmail. By its end, a form of expression, the forces that implement them, and the consequences that arise from them it received such a feature that is now often speak about economic warfare. The use of economic resources for political and military purposes aims to subjugate economically and technologically underdeveloped and poor countries. A special place and role in it have transnational companies on which the logic of domination and control of the market and the export of capital and globalization, the need arises exceptional mastery of knowledge in all its forms, as it is economic warfare continuously. Therefore, the information today, especially the right, proven and timely, a key element of a flat capital invested in an economic operation. To achieve the defined objectives of transnational companies, entire teams of experts working on the monitoring, detection, data collection and analysis of information provided by managerial leadership of his company or state authorities.



Due to the world globalization process, TNCs world markets are viewed as a unified whole and on it perform with a unique business policy sales, marketing and investment. Products are no longer adapted to the tastes of consumers in the region, but also create their tastes, and so created a unique, global culture. All types of investments become motivated by the realization of strategic competitive advantage for on the company, more unified, global market.

If we compare the economic significance of transnational companies and the state of the global economy, it is obvious that the state become a second-rate economic entities. Of the 100 largest economic entities are 51 companies and 49 countries, and the largest trans-national companies have higher sales of domestic product of more than 150 countries. Today the world's growing number of large and powerful TNCs that its economic strength and potential far beyond many of the state and as such can not influence the number of economic and financial processes in many countries.

Except they have a major role in world trade (about 350 leading TNCs is holding about 40 percent of world trade), because of which it is understandable that selectively advocating liberalization and protectionist measures, TNCs became the most important subject of long-term investments (Ilić et al. 2006). For this they need through monetary and currency stability in countries where investing their capital, and appropriate legal system to protect their investment and secure transfer of profits. Already from this is that visible TNCs "must" to interfere in the sovereign rights of host countries, and problems arise when mixing it tries to grow the permitted limits.

Thus, it becomes clear why the TNCs will not hesitate to take whatever they consider necessary to protect their monopoly interests and the global community convinced that the economic, as well as any other war, legitimate (and the legality is not difficult to make, using a "voting machine" veto power etc.) means to

protect free trade, free flow of capital, knowledge, people and everything else that contributes to increase profits. In fact, they are able to explain every move, not only as a right, but also as the best possible level, and anyone who tries to oppose it will mark as a heretic who must reach the "global justice". Mastering of commodity production, exchange, transport, banking and insurance and investing the enormous potential of science and technology in the new developments in the field of commodity production, increasing from day to day positions of power these companies to unreasonable proportions.

Currently in the United Nations are represented 193 countries that had been important player on the world stage. But now their power are undertaking by the corporation. TNCs are richer than dozens of countries and to seek fortune adequate political influence, and tend to take on the role of the state. 90 % corporate income global economy through various forms flows into a 300 transnational corporations, with 60 % of income on disposal of financial corporations. TNC are positioned in several regional groupings, and is now the most powerful western group consists of 49 financial corporations: Goldman Sachs, Morgan Stanley, JP Morgan Chase, Barclays, UBS, Deutsche Bank, Credit Suisse and others. They control 40 % of other corporations. These companies not only to fight for profit rather than encourage the participation of their staff in the policy. There are many ways of taking power by transnational corporations. Since the financing of local government corruption and takeover state officials to work with the company to use his connections to profit maximization.

## **2. Phases of development and organizational forms TNCs**

TNCs go through 5 stages:

- Export activities mainly local companies, thus conquering new markets around the world connecting with local dealers and distributors,
- The company itself take over these activities,

- The company begins to perform the tasks of marketing, sales and other functions in the foreign market,
- The company dominated the international market, with a complete business system including research, development and engineering,
- Everyone in the company employs local, the functions of the company are no longer linked to their country of origin, and the nation and create a new system of values whose head managers of the company operating worldwide.

TNCs appear in three basic organizational forms, including:

1. vertically integrated (mining, oil industry, manufacturing industry),
2. horizontally integrated companies when they have the same kinds of plants in different countries,
3. conglomerates are companies with diversified operations in various industries and sectors of production.

### **2.1. The role of transnational managers**

International managers can not rely on universal principles of management that will guide their behavior for two reasons. First, if the theorists have developed some fundamental concepts of good management based on a Western phenomenon, other companies are so visibly different in their cultures and ideologies that these concepts can not be applied universally. Second, an international manager often must operate in the presence of several cultures at once, increasing the risk of making mistakes when it assumes the best way to get something done. Management behavior and management decisions need to be adapted to different situations.

In management way of speaking, international managers should be able to accept the role of. The concept of leadership potential, although widely accepted, does not include all the

richness of the role of the international manager. According to him, the manager of an armed group expectations or one style of leadership can be expected when confronted with a new situation, to adopt alternative sets expectations with optional style that better works in these new conditions; as a wise manager can develop and maintain several model options, so plan A fails, it can be reorient on plan B or C. International Management is far more complex and effective behavior far more complex than similar activities are limited to a single culture.

### **3. Business policy of multinational companies**

The process of developing and enlarging supranational economic entities by a completely new standards in international economic relations, throwing to the back burner of the national government, which their own economic and political instruments can no longer counteract the management structures of multinational companies. This (above) power evident in the example of the key institutions created by the will of the great historic Bordeaux, which remain under their control in the financial sector to the International Monetary Fund, the World and European Bank for Reconstruction and Development, the European Investment Bank, and on flow field goods - the World trade Organization.

Globalization of business and management structure led to the abolition of self-regulatory role of national markets and supranational economic and governance structures become dominant regulators of economic and social trends. Multinational companies determine the conditions that are not necessarily in line with the goals of economic development and macroeconomic policies of a country; have a lower sensitivity to the demands of the local community (level of employment and environmental issues), resort to monopoly because in developed countries outside the city there is no law that prevents a monopoly. Their

interest in investing in the country's periphery is reflected in low wages, lack of a strong trade union movement, lax regulations on environmental degradation, low taxes.

The consequences are obvious, but one of them needs special attention. If the interests of international concern consistently implemented, the tax rate, for example, would be so low that the state budget deficit had to be treated at the expense of education and culture (they would, of course, first come on the drum). From the point of multinational concern, talented violinists and professors of sociology are entirely superfluous phenomenon university that includes the humanities and the study of national culture is the excessive luxury, needs to be carried out within the nation's socio-cultural stratification of the natural talents of individuals ( characteristic of liberal societies of the West ) is somewhat of What poor people should not think ( Tadić, 1988). Of course, this strategy is not disclosed. On the contrary, on the part of the public scholarships to talented, but a perspective that is not something that can be relied upon, as it is based on the goodwill of donors, rather than the legally guaranteed rights within socially regulated state. A citizen came into the situation of the crucial questions of his existence affects someone who can not provide or withhold support in the elections.

The theory of a free single market, a stronghold of the Visitation of international equity, deficient because of the uniqueness of the market can only speak where there is a single legal regulations for all participants in the competition. Therefore, the laws that protect employees in the West of despotism employers, concerning primarily the cost of labor and long working hours do not apply to labor markets on periphery. Although the products it creates, often doing the same jobs as employees of the parent business units in the West, selling all over the world regardless of the country in which they arise. Manhattan was in 1997. Were held demonstrations in front of the Disney store. The protesters prevented the purchase, carrying placards stating that soft toys Disney

Company, a retail worth of 20 - 200 dollars, made by children in Tahiti for 16 cents an hour, while the director of Disney per hour earns 91,000 U.S. dollars (Scholte, 2000).

Underdeveloped countries are included in the integration of the solid reasons such as the launch of the devastated economy, escape from the inherited economic deadness, the transition to modern forms of economic life and civilization. This applies to countries such as China and Brazil is not much advanced in level of aspiration. But in some countries of the Far East the situation is even worse. Children work with miserable wages, development prospects, environmentally Twilight - symbols are fighting for the survival of the poorest. The process of globalization has resulted in the acquisition of the enormous power of the multinational corporations, particularly in developed countries where they are able to shape policy and influence the government. In LDCs they often violate human rights and behave in a way that could not have in their own countries in the North. Multinational corporations manage across national boundaries so that individual governments can not fully regulate their activities. Corporations sometimes avoid responsibility by using a law that allows them to transfer their business or operate under the auspices of other corporations.

Even when countries have national laws that regulate the activities of corporations, these laws are often inadequate or do not refer to multinational companies, especially in developed countries. Corporations often work in areas that are rich in natural resources but have not been developed, where they exploit the environment and the local population, affecting even their displacement and threatening their cultural heritage. In Kenya, for example, a Canadian multinational corporation Tiomin Inc. came into conflict with the local community, when its actions threaten forests communities for centuries considered holy. As international corporations have so much power there is a need for international regulations within which they can operate. It is impossible to achieve

sustainable development and alleviate poverty, and not to protect the human rights and dignity of all people.

In December 2003, the community of Rukopwu in Nigeria has suffered extensive damage when the oil pipeline that runs through the area had been broken and the oil spilled. As a result, the wells are contaminated, leaving communities without potable water. Farms and lakes with fish also destroyed, and most of the families in this agricultural area lost its source of income. The pipeline is managed by a multinational corporation Shell Petroleum Development Corporation, which is a partner with the Nigerian National Corporation kerosene. Neither side has removed the effects of the oil spill. This incident and inaction partners Shell and the Nigerian government were a violation of human rights of the population in Rupokwu. Their right to a clean and healthy environment and adequate standard of living is clearly violated.

In the 1984, spills of toxic gas in the Indian city Izopal caused the damage of life in the community. Spills happened at the plant of another MNC, Union Carbide Corporation. Within three days, more than 7.000 people died and the thousands were injured. Today, almost 30 years later, over 100.000 people suffer from chronic illnesses and illnesses that weaken the body, while babies have been borned with a birth defects. Many women lost their medical ability to have children and, as such, marked by the company became the subject of discrimination. Union Carbide refused to take responsibility for the spills of gas and transfer its assets and management of another corporation, who negates that has been inherited the obligations of its predecessor.

## **Conclusion**

Deepening and development of the international division of labor on a new basis, the emergence of global markets and the world economy, created international monopolies. They are the result of the strengthening of monopolies within national borders, as well as the emergence of the export of capital. In an effort to reach as many extra monopoly profit, national monopolies seek to expand its activities beyond national borders. In doing so, they order a favorable export of capital, because it's easier to skip the state barriers. The tendency of large monopolies to achieve as many extra monopoly profits, possess sources of cheap raw materials, energy, labor, etc.. through division of the market in the world, on the one hand, and the overall competition on the other hand, has led to the establishment of an agreement between them, so that international origin monopoly.

International monopolies are an alliance of major national companies come together for monopolizing the production and sale of certain goods, exploitation of raw materials, energy and capital increase at the global level.

The realization of the scientific and technological revolution, the expansion of the world market, capital increase, etc., Have meant that international monopolies grow into multinational companies (dominated national capital and management) and transnational companies (without domination of national capital and management). Corporations pay less taxes, the population loses privileges and benefits, the state budget disappears and appears lots of people who want to control territory, where leaders sit far away. An alternative to this perspective is the change goals of humanity, which means the renunciation of making a profit as a goal and setting up new prospects for self-development of man's existence.

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## CORRUPTION IN ECONOMY

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**SUMMARY:** Ethics in the social life of the people there since ancient times. Not so long ago, jobs were assembled so that, after the deal, people shake hands. Such a ritual was enough to formalize the act of entering into a business deal. Over time, he grew up living standards, it appears that the mistrust between the people grew, the business is not the same as before, and corruption is all over. Countries in transition, going through a period when food is fixed in a sensitive stage and when corruption is playing a very important role in the progress of the economy of a country.

**KEY WORDS:** *corruption, economic system, the transition law*

### INTRODUCTION

Corruption in the literature often defined as the abuse of public power for private purposes is a serious social problem. Events around the world clearly show that corruption occurs in all countries, although it must be recognized to varying degrees, the shape and intensity. Suffice it to recall the numerous financial scandals that have in recent decades shook the planet, and which unmistakably point to corruption as leading politicians and the powerful and influential business people. It can be argued without much fear to make a mistake, that corruption has become almost an integral part of economic and social life. This is precisely the key reason that corruption imposes as a research subject.

In order to effectively fight against corruption should be primarily understood conditions which encourage its creation, operation and expansion. In doing so, it is necessary to have in mind the fact that corruption is a much more complex social phenomenon than it at first may seem.

The National Strategy for the Fight against Corruption defines corruption as a relationship based on abuse of authority in the public or private sector for the personal gain or benefit of another. Corruption and bribery practice, as old

as the country. Therefore the struggle to suppress the same as the old. Along with the development of economic operations, among others in the economy and the bureaucratisation of society, corruption is grew in intensity and thus has become one of the major problems of the modern world. Was also aware that even with the ancient Athenians were facing with eni assoc with this social phenomenon. For this, they have a set of rules for its suppression. Ermin T., corruption "Machiavelli takes over from Polybius and on a marked deterioration in the quality list was in England that the notion of corruption in the eighteenth century, in addition to spoiling authorities identified Bribery the decisions. Under corruption, today, ESC understands the illegal use social position and power for their own used. Concern is that the excessive civil state, elections not reduced to bribery making. Corruption is therefore not subject to the thinking of many scientists for centuries and it is still impossible to find a way to eliminate its most efficient, or at least reduce to a reasonable level.

### 1. LEGAL LEVEL FRAMEWORK THAT DEFINES CORRUPTION IN SERBIA

The Criminal Code does not contain a separate chapter which would contain all corruption offenses, in accordance with its definition in the National Strategy for the Fight against Corruption. However, based on this definition, among the offenses prescribed in the Criminal Code, the crime of corruption can be identified: abuse of authority, violation of law by a judge, public prosecutor and his deputy, fraud services, trading in influence and acceptance of bribes, bribery, disclosing official secrets, abuse of authority in the economy, corruption in relation to public procurement and misuse of official position of the person responsible.

The head XXIX Code of Criminal Procedure stipulates special provisions on the procedure for organized crime, corruption and other serious criminal offenses. However, even though the title of this chapter refers to corruption offenses, the Code provides no definition of corruption, but only in Section 504-a, paragraph 5 states that among offenses against corruption include: misuse of the official position, trading in influence and acceptance bribery and bribery. In accordance with this provision, in relation to these offenses (among other enumerated, which does not give the sp a corruption offenses), possible application of the special measures law enforcement bodies to detect and prove these offenses, namely: monitoring and recording telephone and other conversations and communications, providing simulated business services and simulated legal affairs; controlled delivery; automated computational search of personal and other related data.

In relation to these offenses, but only when committed by an organized criminal group (organized crime), it is possible to apply specific measures: the undercover agent and the cooperating witness. Trial competence to stand trial for corruption offenses is divided between basic and higher courts, as well as the Special Department of the Belgrade Higher Court for Organized Crime. The Magistrate Court has jurisdiction to prosecute crimes of abuse of office, fraud services, trading in influence and mismanagement of the economy of Article 238. | Put 1 and § 2 of the Criminal Code.

From an analysis of the present legal framework and practice of the courts may be several conclusions:

- 1) corruption offenses (in accordance with its definition of a national strategy to combat corruption) are grouped into one's head, but there are several head of the Criminal Code.
- 2) Criminal Procedure possibility of application of specific measures to detect and prove offenses (evidentiary actions) limited to four offenses of corruption (abuse of the official position, trading in influence, bribery and bribery), although the Criminal Code prescribes other corruption offenses acts (violations of the law by a

judge, public prosecutor and his deputy, fraud services, disclosure of official secrets, abuse of authority in economy, abuse in connection with public procurement and misuse of official position of the person responsible);

3) all first instance courts of general jurisdiction (basic, higher and appellate) are competent to adjudicate these crimes;

4) judges who adjudicate corruption offenses are not any specific requirements in terms of having some years of experience and proper training. Only the judges of the Special Department of the Belgrade Higher Court and the Appellate Court in Belgrade, provided that they have some years of experience and will be given priority in the allocation of judges who have special needs expertise and experience in the field of organized crime and corruption. However, it is closer to prescribe what those special skills and where they are acquired;

5) Judges in the Special Department of the court president, or the High Judicial Council, in the case of judges from another court, and that the annual work schedule and the fact there are no specific criteria and standards by which it is done;

6) Judges in these special classes have a specific status because in this department are appointed with his consent and for a period of at least six years;

7) the courts as the most common form of corruption appears the offense of abuse of office;

8) the most frequent act of commission of the crime shows "use of official position"

## **2. THE MAIN CAUSES OF CORRUPTION**

In the economic world, the basic interests of all economic entities, namely, the interests of all the people who engage in economic relations, are identical, the maximization of personal well-being. Thus, self-interest is what is the main motive of people who engage in mutual

economic relations. The founder of modern economic science, Adam Smith is still more than two centuries clearly presented this concept. Baker does not supply us with bread he for his altruism, or concern that we are not hungry, but because of the profits gained by selling bread. Each of us is willing to invest some or any resource that has (assets, money, work hours, work effort, etc.), only in the case of such an investment gain greater value than the one it was lodged. And each of us attempts to maximize the difference between the value of investments and the return on that investment.

Special rents such maximization is the so-called quest for rents (rents seeking behavior). Rents represents a total income bigger from costs related to such income. Economists would say that the annuity yield to above opportunistic costs investment costs determined specific resource (Marxist-oriented economists the renting called extra profit). Each of us Telia to capture or maximize rent. To do this, we are ready to heard f imo our e resources to influence decisions that will allow us to appropriation of rents. Some forms of rent-seeking certainly do not fall into corruption. There are some funny cases Corruption in situations where there is no rent, but most important, the most abundant and with my own dangerous consequences of corruption are related to situations that create rents. Corruption, then, is a tool for creating and appropriation of rents. It is important to note that in this case the total amount of the well-being reduced due to dr g interencije state, regardless of whether there is corruption or not. So, get intervention in this case is manifold counterproductive. First, it reduces social welfare, drugo, creates space for corruption, by which the civil intervention creates an annuity, or an incentive to corruption of government officials of the capture at least part of the generated rents. At the same time, total corruption limited to the amount of rent. Corruption will always be at least a little less than the total amount of rent. So is very important to note that the change in the amount of corruption in this case does not lead a change in the allocation of resources, so that there is no change in the amount of total assoc social welfare, but only to its redistribution. This, on the one hand, increases

social welfare socio, and with a second hand, eliminates rent and removes the possibility of corruption. So, in this case, there is no dilemma about the best strategies to combat corruption.

A typical example this kind is the case edition monopoly, where it is assoc socially justified to positioning of production in a given market perform only one manufacturer. So, establishes strengthening competition in the event of a natural monopoly is not assoc socially by'll no. The problem is that, if there is no other state intervention and economic regulation of natural monopolies and monopolistic behavior occurs behavior that leads impairment supply, increase prices and create rents (monopoly profit). Perfect civilian intervention (economic regulation) power is, at least in principle monitored, lead to a balance that will maximize socio-being and eliminate the existence of rents. If, however, monopolist has an incentive to corrupt regulators and, has way, and space for economic profit or rent.

### **3. PAST EXPERIENCE WITH CORRUPTION IN THE ECONOMY OF SERBIA**

The disintegration of Yugoslavia caused is, despite her physical disintegration, and disintegration of the political, legal and economic system. In addition to the break-up of the economic space there is to the dissolution or transformation of the then present value system. Redistribution country caused by the war on its territory. And as consequential ca disintegration and war, there was a decline in economic activities, flows of refugees and the general impoverishment of the entire society. Second, as a result of the war, Serbia was ten years been subjected to political and economic sanctions of the international community. In such opportunities, then government is systematically working and the relocation of the flow of commodities and capital from a legal into illegal market. Adopted a political doctrine ruling elite was supported by many individuals, both those close to the government, and of this clarification, as seen in that each round of the national economy, a second chance for a quick and illegal profits. This reduced anyway little public scrutiny characteristic of communist



regimes, on the one hand, and increase the ability of various speculative actions, on the other side. The semi-legal way of doing business has not experienced widespread public condemnation, but is most often graciously accepted, because in this way to acquire a variety of often scarce commodity.

The sanctions, which reduced economic activity, caused loss of employment for many and caused the decline in living standards for most population. The result is also forced to go to hundreds of thousands of people in the informal economy and small drug that enabled them to survive. Third, the introduction of, any of the limited political pluralism and growth private sector, the number of generally accepted social norms no longer stand. Operation between the private and social sector suddenly freed longtime political - legal limiting. In fact, business is freed from strong party control. At the same time, the political power shifted between the market economy and a hybrid type market economy. Because there was no clear political will to build legislation adapted to the new conditions. In business created a real uproar. Established a large number of predominantly trading companies. The desire to become rich very quickly, similar to the representatives of the political and economic elite, became generally accepted credo of most business people. This allowed the conclusion of the majority of suspicious deals between private companies and the communist manager state-owned enterprises. Because for a long time, state ownership is perceived as a man's, for onerous contracts by these companies no responsibility. Political and economic elites are part of the same nomenclature and are therefore able to cooperate without any legal consequences. Privatization of state ownership drags on endlessly make it on the way transformed in private. The actors of this illegal privatization are representatives the current political and economic elites. Many individuals even though they did not belong the authorities used the new situation for fishing in troubled waters.

The stated reasons were more than favorable for corruption. Melting in, any of the limited legal system largely involved at the time actual political power. In the name of higher interests, they first detained eyes, and then, in the

business entrances, step by step, and representatives of the highest authorities. It gave a negative example for all the other actors in the business transactions. Described social changes are also a clash of social values and the moral crisis, on one hand, and impoverishing the entire society, on the other side. Poverty is a potential source of corruption. So in *Politics* emphasizes that the poor people in the system of judicial or executive authority, because of their poverty and corrupted. With this view is entirely consistent Webber, who emphasizes that responsible and professional bureaucracy must be adequately rewarded. Almost similarly respond to the citizens of Serbia. The main causes of corruption seen in the functioning of the judicial system, moral crisis and general poverty. As the judicial system is concerned, one can start from the position that classical watershed between the legal and the police, or, as our case law and corrupted state is subjecting the rights of those in their hands the executive power, and therefore the power of the use of physical coercion. A prerequisite for this is the respect of the proceedings, as law society or the rule of law is based on justice and fair treatment generally involves the same behavior towards everyone being equal. In contrast, unfair process favors one of the participants, and do not. More specifically, the rule of law means the state in which the administering authority subject to a set of rules that are imposed in a forced way, and at the same time form the basis of the scope and limits of its power. Accordingly, the legal the state should not prevent public officials to act arbitrarily and to ensure uniform application of the law under the same or similar circumstances, regardless of the participants. Equal treatment of all participants in the legal process, respect for basic individual rights of citizens, regardless of religion, race, physical characteristics, wealth, reputation in the society, membership in a political organization, friendly or family relationships with the dealers of Justice, in the hierarchy of power so, its basic characteristics. In order to implement these principles in practice it is necessary to satisfy one of the conditions of the independent the judiciary is an independent class juridical honorats. The referee must be aware of their social role, in whose honor the professional includes the willingness to perform the legal craft that be a

carrier of its own legality of legal form. Finally, this is especially important, any rule of law, that is so call, you must provide a broad grant of consent rights particular value in all areas of life, and that there must be widespread belief that the government, and therefore its abuse, may be restricted only by law. All in all, it can be concluded, that in a society, more realized this, briefly presented the theoretical model, the less corruption, ie, a deviation from it greater and greater corruption.

#### **4. ECONOMIC DIMENSIONS OF CORRUPTION IN SERBIA**

When it comes to market transactions, corruption leads to the violation of rules of the game, where one participant seeks to ourselves to provide favorable conditions for the game, to maximize profits. The same is true for entrepreneurs who, with the help of bribes to try to secure yourself a more favorable position in the market, which violate the equality of market relations, and the favorable position of the monopoly is just a few steps. On the other hand, the number of illegal conduct or actions of individual officials and other persons may be subsumed under the concept of corruption. The deviant practice, when the judiciary and public safety becomes corrupt, the state is only one step in front of what is called a "captured state", ie it is a condition in which not only the individual services and agencies, but also the very top of government, ie complete state in the grip of corruption. Abuse of public power, as synonyms of corruption for personal gain are tiny irregularities that citizens face in their daily communication with public officials and employees with lower status. Grand corruption is far more dangerous to the general public interest because it is achieved, often at the top level of a country. In Serbia, corruption and money laundering had several forms, that manifested themselves in the unlawful acquisition of personal wealth, illegal occupation and appropriation of state property and houses, as well as unscrupulous privatization that has received the most serious forms of crimes against the economy, official duties, etc. .

In every society, the oligarchs and insiders profit the most undeveloped in the institutional framework, and their power is reduced only when, or rather if the liberalization and privatization accompanied by the strengthening of discipline (ie the judiciary and the rule of law) and the creation of a favorable investment climate. Willingness to offer bribes is proportional to the power potential corruptors, and this has resulted in two, key, phenomena:

- destroying the medium and small entrepreneurs;
- closing the market and hampering the work to interested entrepreneurs.

Generally, corruption then generates a situation in which all participants in the market feel insecure. In conditions of uncertainty it is difficult to assess the actions of their potential competitors and can not be planned for future moves. Thus creating economic uncertainty that still generates or promotes inequality actors in market transactions. It is known that the unequal conditions of each profit illegitimate, and therefore she achieved in such a distorted or monopolistic market. Modern forms of corruption, cover up most frequently:

- fictitious contract work;
- forged travel accounts;
- fictitious by employment;
- approval unrealistic fee;
- issuance of letters of guarantee;
- engaging certain persons as external consultants, professional advisers or consultants;
- payment of royalties for "offenses" that are not written;
- fictitious costs representations and advertisements that may conceal giving lavish gifts;
- "Engagement" of certain persons in the various committees and other bodies that are doing just that form;
- performance of a variety of free services or services for a symbolic fee;
- fictitious finishing goods in foreign companies;
- "Sale" of goods at a price that is much lower than the actual, and the like.

The first step in eliminating corruption from the economic point of view, the presence of economic freedom, and that means the possibility that wider unfettered activities of individuals in the market. Further to mean, in a

positive sense, the widest freedom of choice, and in the negative, the absence of any compulsion and coercion in economic activity, with the obligatory respect for the law. In this sense, economic freedom depend on: the security of property rights, economic policy, freedom of contract, the scope of state intervention in the economy, customs and tax burden, quality and degree of regulation, government spending, freedom of entry into the business, to the general state of society, and economic and social climate. This concept of freedom of economists called economic freedom and market freedom. The degree of economic freedom depends largely on market development and short-term and long-term growth of the national economy.

## CONCLUSION

For almost two decades of business between private and public (state) sector is exempt from many years of political and legal constraints, and acquitted of one-party control. At the same time, the government has long vacillated between the market economy and the hybrid type polutržišne economy, but the economy remains the dominant command with a strong socio-political control. Approved changes are mostly cosmetic in nature because there was no clear political will to build a legal framework adapted to the new conditions. Therefore, the business has created a real uproar. Without checking the financial credibility of the owner, which normally is not a problem, base on the important but is a lot, mainly trading companies. In terms of great legal uncertainty and reduced economic activity, on the one hand and the lack of social control, on the other hand, many of these firms served for conducting

suspicious affairs. Companies, organizations, institutions and other organizations and authorities have at their disposal numerous measures and actions for preventive action. These measures may include: organizational, economic, legal, human resources and technical nature.

The prevention of corruption and the important role of the media and public opinion, because they act on citizen awareness and influence the formation of public opinion in relation to specific cases of corruption. In addition, the preventive actions to prevent and combat corruption must not neglect the action of the local authorities. The ultimate goal of fighting corruption is not the complete elimination of corruption, because it is practically impossible, but increase overall efficiency, fairness and legitimacy of the state.

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## BUSINESS NEGOTIATION IN MANAGEMENT

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**Abstract:** Every day we are faced with some form of negotiation. Negotiation is a means of communication between two or more persons with the aim of achieving an adequate agreement that will be acceptable to both sides. Successful business negotiation in management is used in organizations of all types and sizes, at all organizational levels and in all sectors of business throughout the world.

Management shall in all circumstances to plan, organize, lead and control in different ways according to their managerial position as well as the knowledge, abilities and skills that they possessed. Negotiation is an important part of communication which results should contribute to increasing the efficiency of business organizations. Any experienced negotiator in negotiation process has consciously and deliberately, and has a strategy of negotiation. The strategy represents a proactive approach to the negotiations, and the approach aims to influence the course of negotiations.

**Keywords:** *business negotiation, management, strategy of negotiation, negotiator, negotiation process.*

### Introduction

Negotiation is an everyday human activity. In communicating with other people on a daily basis to negotiate, often unconsciously, when in some common situations using negotiation techniques. Negotiate with family members, colleagues, friends, etc..

Negotiating an ancient civilization heritage, which has been used for various purposes throughout the history of mankind. Negotiation is the way in which people resolve their differences and the many problems they face. Negotiation is a process that involves at least two parties aim to reach an agreement that is acceptable to both parties.

Bargaining contributes to solving many economic, political, security and other problems. The negotiation process is an effective method for resolving conflicts.

Negotiation is a reconciliation of the ideal outcomes with achievable outcome, and the negotiation process of communication between two or more negotiators, who are trying to establish a new relationship.

Whether we will be successful in negotiating, it depends on our negotiation skills. The most dangerous is to enter into negotiations, and not be aware of it, or to negotiate and not know to control the situation. Experts believe that in general the better the results of the negotiations reach men who possess knowledge, skills for negotiation, having a plan negotiations and take principled bargaining position. On the other hand, unprepared and untrained negotiators rule achievers negotiations.

### **1. The concept and importance of business negotiations in management**

Business negotiation in the management of a very complex process of interpersonal communication, during which the two parties are trying to achieve their business goals. Negotiations are not only related to financial transactions, but the negotiations related to the rapidly changing information and circumstances. Solve problems involved in the negotiations achieved through dialogue or

through mutual adjustments and concessions in the other.

Negotiation is an important part of communication which results should contribute to increasing the efficiency of business organizations. Every negotiation is to use communication skills to solve a specific problem or conflict, in order to achieve a satisfactory outcome for both parties.

Negotiation can be viewed as a process in which participants interact in order to achieve certain goals. Entry stakeholder contact, establishing mutual communication is the first step towards a successful business relationship. It is assumed that from the very first contact interest of both sides to achieve a stable business relationship, regardless of whether it comes time deal, penetration into foreign markets or long-term business strategies of cooperation.

Negotiating skills can be constantly improved. The potential benefits of the negotiations are very large, so that the damage is used as a negotiating tool to obtain unilateral benefits through unfair and ethically unacceptable techniques. The chances that negotiations provide large, and based on them can be accomplished significant effects, which can be very important for a top management in business negotiations.

## **2. The process of negotiation in management**

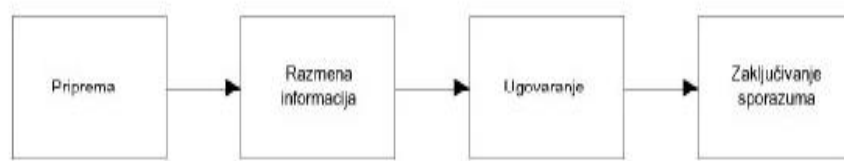
Negotiation management is an important segment of human activity, both in the private and the business plan. In the negotiations, there are at least two opposing sides, which represent their interests. The outcome of the negotiations depends on the ratio of negotiating power and the skill and ability of negotiators to reach their goals.

The negotiation process can be divided into four phases<sup>1</sup>:

- Preparation of
- Exchange of information
- Contracting
- Establishing an agreement or contract.

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<sup>1</sup> Dobrijević, G. (2011) Poslovno komuniciranje i pregovaranje, Univerzitet Singidunum, Beograd, str. 95



**Figure 1: The process of negotiating:**

- Preparation - a vital part of the negotiations, and that is the most important phase of the negotiations. Without good preparation, there is no good negotiation. Prior to the start of negotiations the manager will clearly define what it wants to achieve through negotiation or define objective of the negotiations, by setting priorities.

- Exchange of information - this is an essential step in which you can learn certain unknown information, which is of great importance for the further course of business negotiations in management.

- Contracting - the stage of the negotiation process in which there is an exchange of different resources, and currency. That determines the power of the negotiating parties and the amount of proposals and bids. Currency or resources can be tangible and intangible.

There are three types of currency<sup>2</sup>:

1. Primary - the starting bid. This is what is in the foreground negotiation.

2. Alternative - the currency that could satisfy the opposite side.

3. Elegant - have the best relationship for the provider of currency, because it does not represent a great value, but the recipient is very important.

The conclusion of the agreement - after contracting phase followed by concluding agreements or contracts. Concluding the agreement of the contracting parties to accept the rights and obligations that the agreement or contract regulated. There are different views on the last stage in the negotiation process. The conclusion of the agreement can be viewed from the perspective of East and West, and Eastern and Western cultures.

For negotiating the West, the goal of the process of negotiations to conclude a contract and compliance with its provisions, while the negotiators East agreement is a step towards bringing together and developing relationships.

### **3. Strategies and tactics of negotiation in management**

*"Never cut what you can untie."*

Any experienced negotiator in negotiation process has consciously and deliberately, and has a strategy of negotiation. The strategy represents a proactive approach to the negotiations, and the approach aims to influence the course of negotiations.

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<sup>2</sup> Dobrijević, G. (2011) Poslovno komuniciranje i pregovaranje, Univerzitet Singidunum, Beograd, str. 99

Applying strategies of negotiation, the manager negotiator is unable to control the course of negotiations, or to move in a desired direction. Without a clear negotiating strategy at the start of the negotiations, opponents will try to dominate the process determining rules and the course of negotiations. Tactics are the tools for implementing the strategy negotiation. Experienced negotiator uses various tactics to achieve its interests and goals. Strategies and tactics of negotiation are the basis of modern business negotiation in management is needed, and it is unthinkable without their implementation.

### **3.1. Negotiation strategies**

The strategy of negotiation is a very important factor in achieving a positive outcome of the negotiations in the business of negotiating with management.

If the negotiator does not have pre-prepared negotiation strategy, success in negotiations is very uncertain, with minimal chances of achieving the desired results.

That negotiations be successful it is necessary to good preparation. Preparation is an integral part of the strategy of negotiation. Negotiators or manager should perform the following preparatory work before starting formal negotiations:

- ⇒ achieve internal agreement and unity of the team that negotiations would not be sabotaged from within,
- ⇒ Set your goals and points breakdown in negotiations,
- ⇒ dissociate its negotiating team from the standard negotiating tactic,
- ⇒ Determine the true aims and interests of the opposing party,
- ⇒ Make discord between his opponents and their associates,

- ⇒ profiled his opponents,
- ⇒ Collect information on the fly.

Overall, the strategy can be divided into competitive and cooperative.

Competitive strategies are those where the negotiators compete with each other and which are based on the principle of "one gets, the other loses," that is a win / lose negotiation.

Cooperative strategies are those in which negotiators make efforts to achieve a lasting solution which meets the interests of all negotiating parties. It's a win / win negotiation.

In addition to this rough division strategy of cooperative and competitive there is another division, under which the four basic negotiation strategy manager or negotiator:

- Solve problems,
- The struggle for supremacy,
- Loosening,
- Doing nothing.

Solve problems - is a constructive approach to negotiations. Problem solving strategies implies the willingness to invest joint efforts in order to reach a positive outcome, or to find a better common solution. Implementation of this strategy provides the best and lasting results. Problem solving strategies often can result due to a sound basis on which rests, a development of the relationship between the negotiating parties in a true partnership.

The fight for supremacy - is a competitive strategy. Negotiator to compete in order to achieve a better result. He cares only achieving their own interests and goals. This strategy has a negative impact on their relations negotiator, or in circumstances can often lead to escalation. Cooling of relations negotiator is not a desirable outcome of the negotiation process. By applying this strategy is obtained mainly

weak solution that is permanent outcome, because it does not satisfy both negotiating parties and disturb the stability of the relationship.

Easing - the strategy of negotiating parties to make certain concessions. This strategy generally does not allow for successful negotiations, because the strategy of appeasement negotiating parties reduce their aspirations and interests, which can result in incomplete satisfaction achieved agreement. Good results by applying these strategies are possible when the subject of negotiating peripheral issues which are at the core of the negotiations.

Omission - is a passive strategy of negotiation. This strategy is manifested by the absence of any activity, or ignoring the negotiation process. Its aim is to disrupt opponents, to create tension and uncertainty that will come to the conclusion of an agreement in time-limited negotiations.

The steps for implementing successful negotiations are:

- ❖ Separating people from the problem,
- ❖ Focus on interests, not positions
- ❖ Creating alternatives to the mutual benefit,
- ❖ To insist on using objective criteria for the evaluation of proposed solutions.

There are three kinds of human problems that may arise in the relationship between negotiators and these are<sup>3</sup>:

- Perception,
- Emotions,
- Communication.

Perception - not to be confused with the perception of reality, nor predict intention opposite sides on the basis of their fears.

Emotions - are a very important component of the negotiations. Recognizing and understanding the emotions of both opposing negotiating parties is a recipe for success in the negotiations. A successful negotiator is unable to control his emotions, and that they knowingly handled.

Communication - Without communication there is no negotiation. Effective communication among negotiators means successful negotiations. You must listen carefully to what is being said. Listening helps to understand the perception of the opponent, or the manner in which it is deemed a problem. Should encourage the other side to clearly say what he thinks, and to repeat and clarify all doubts. Problem should be described with our position, not the position of the opponents. For example, you might say, "I feel betrayed," not "trampled you word." To speak with purpose and carefully, because each spoken word count.

### **3.2. Negotiation tactic of the management**

Tactics is a very important element of business negotiations in management. Negotiators in the negotiation process using tactics of negotiation, through which implements a strategy of negotiation. If the negotiator does not behave tactically, it means that there is no negotiation strategies. And if there is no strategy, prospects to achieve our set goals and interests of the minor.

As mentioned above, the wings follows the strategy, and therefore skill negotiation may be competitive and cooperative:

Competitive strategies that are commonly used are:

- ❖ Escalation authority - the introduction of a new hearing or further authorization required in negotiations.

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<sup>3</sup> Ibid., p. 419



Prevented at an early stage of the negotiations, a clear agreement about who has the delegated authority to make decisions.

- ❖ Bluffing / lying - is a misrepresentation of facts or negotiating positions.
- ❖ The so-called. "Cherry picking" - a tactic that the negotiator separates bid on individual elements and only accepts offer, and some elements that he and the others take over from other vendors.
- ❖ Bringing negotiations to fix - negotiator raises difficult attainable condition or seek emergency concession, or otherwise terminate the negotiations.
- ❖ Setting deadlines - is a tactic which negotiator time limits proposed solution.
- ❖ Impasse - negotiations are brought to a point where you can no longer go on at this moment can not come up with a solution.
- ❖ Divide and conquer - including more negotiators in the process, so that based on their number and aspirations achieved a more favorable position.
- ❖ Emotional outbursts - are incorrect outbursts of emotion negotiating parties, such as insulting the opposing negotiating parties.
- ❖ Addressing the higher authority of the opposing party - in order to achieve a better position in negotiations, negotiator, speaks to the higher authority of the opposing party.
- ❖ Bringing a fait accompli - negotiator served agreement with inserted elements for which no consent.
- ❖ debasement of money - is a tactic by which the value of money which is the subject of negotiations trying to introduce smaller than it really is.
- ❖ requirements that are not negotiable - is the elimination of issues from the negotiations.

Cooperative tactics that are commonly used are:

- ❖ Determination of the agenda - the determination of the list of issues to be negotiated,
- ❖ Determination of authority - determination of decision-makers,
- ❖ Balancing - comparing benefits both parties,
- ❖ Joint creative thinking - the participants in the negotiations together to try to come up with new ideas (brainstorming),
- ❖ Connect currency - the currency combine to create additional value,
- ❖ Break to agree with team members - a break that allows the review,
- ❖ Change of pace - speeding up or slowing down the dialogue,
- ❖ Replacement negotiating another member of the team - can neutralize the immediate advantage on the other hand,
- ❖ Assembling work - inviting the other side to the final completion of the agreement
- ❖ Columbus - negotiator is true that it is not understood and requires further clarification in order to gain time to think,
- ❖ Shared interests - creating a positive environment by emphasizing common concerns, beliefs and interests,
- ❖ concessions - maintain the progress of the negotiations, may initiate negotiations deadlock,
- ❖ The conversion of the other - the impact on the member opposite side that it becomes an ally,
- ❖ Disclosure - reveals further information or interest in order to create a trust, but it can be perceived as a weakness,
- ❖ Creating more common uses - creating new opportunities and solutions to extend joint profit
- ❖ Techniques-saving - enables negotiator opposite side to get out of uncomfortable situations, creates a positive climate,

- ❖ Changing Agreement - Joint changing work arrangements in order to save time,
- ❖ Objective criteria - the use of facts, data from objective sources, giving credibility to the negotiator,
- ❖ Informal conversations - conversations outside the formal negotiations,
- ❖ Patience - often called super tactics. If the negotiator has enough time, can not wait to change the other party, or circumstances,
- ❖ Periodic changes in the agreement - Verify that the opposite side is satisfied with the agreement reached,
- ❖ Open "no" - a response to unreasonable proposals opposite side,
- ❖ Grading priority - an issue the other negotiator to quantify the importance of an issue,
- ❖ Isolation problem - separation issues other side does not want to include in the agreement,
- ❖ Time to think about the offer - as the pause gives the negotiator the time, but it can also be understood as a delay,
- ❖ Summary - after rounds of negotiations, negotiators together recurring issues are agreed,
- ❖ Schedule team members - the seating of the negotiating team in accordance with the negotiating style
- ❖ Testing position the other side - the opposite side of asking questions to test the reasonableness of the positions taken
- ❖ Potentially abandon negotiations - signaling the resumption of negotiations under the current circumstances is impossible,
- ❖ Warning instead of threats - an alternative to the open threats
- ❖ Proposing new options - to support a common finding solutions,
- ❖ Determination of boundaries - defining the minimum acceptable price to the seller, or the most reasonable price for customers.

#### **4. Business Negotiation Manager as Negotiator**

No matter what field are conducted negotiations managers as negotiators conduct negotiations alone or as part of a team.

Negotiations can be very complex, demanding, since their outcome may depend on the fate of the organization, the negotiator has a very responsible role as an individual or as part of top management.

Communication Manager is an indispensable part of the negotiations, as well as an essential element manager. The negotiation process is unthinkable without communicating with each other negotiators. Without communication there is no negotiation. The negotiations involved two or more negotiators. Communication is more difficult to the extent that it increases the number of negotiators, so they are most effective negotiations in which there are two the negotiating parties. Negotiators communicate with each other in order to come to a result that will satisfy both negotiating parties. They carry out their pre-prepared strategy and tactics of negotiation. When the communication between negotiators effective, better results are achieved negotiations.

Negotiators during negotiations using both verbal and non-verbal communication. Verbal communication in the negotiation process related to the subject of negotiations. In addition, negotiators often communicate and non-verbal. Communication non-verbal signals can reveal much about the negotiator on the other side of the negotiating table, its intentions and aspirations. Negotiators negotiate formally and informally. Negotiators negotiate formally adhering to the agenda and structural forms of negotiations. In addition, negotiators can negotiate informally. Informal negotiations may have a better effect on the process, because it leads to a more relaxed atmosphere, without the tension and anxiety. When there are no formal frameworks negotiators have been more

creative in creating an alternative that will successfully complete negotiations.

Business management negotiations can take place within the organization and then to the internal negotiations, and can be external when negotiating with external stakeholders. The subject of internal negotiations can be all sorts of individual bargaining employee with the employer, negotiating with the entire collective. External bargaining involves negotiation process with external factors.

Modern business market management is characterized by exceptional dynamism, business negotiation in management. In terms of these dynamics, organizational change and adapt to new circumstances, have become commonplace. The most important change that reflects the modern business climate is changes in the degree of change. We are witnessing the globalization process, which leads to the merger of the organization, or take one of the others. These processes are performed by bargaining, where the two parties are trying to protect their interests and to achieve the best possible outcome.

### **Conclusion**

Business negotiation in management is an important business segment in which the two parties are trying to achieve their organizational goals. Negotiation is the process of solving their differences or problems between the opposing negotiating parties. The negotiations involved at least two, but it could be more negotiating parties. Negotiation is a good way to resolve the conflict.

Bargaining leads to the conclusion of the agreement, enhancing and improving existing relationships. Negotiation aims to achieve outcomes that are satisfied with all the negotiating parties (win / win result), because the only outcome of such a permanent solution, which guarantees the stability and long-term quality relationships. A good negotiator never

falls directly into the fire, and does not enter into open conflict, but will work hard to avoid it, and an elegant and subtle way to solve a specific problem. The basic elements of negotiation negotiators, negotiation process and outcome of negotiations.

Management is a separate specific activity that is directed towards the achievement of preset goals and objectives of a business negotiation system. Management activities are carried out through the managers of various levels and profiles.

Today's business negotiation in management and business involves interaction between individuals and groups belonging to different cultures and seeking similarities.

People who work in today's international organizations often have multiple cultural identities. For example, their parents were from Russia, they adults in Serbia, were educated in Paris, and living in London. In fact, professional negotiators, managers, businessman in international organizations selects on the basis of their multicultural experience and training.

Traditional framework of negotiations observation also does not take into account other variables besides the national culture, such as for example, the organizational environment and technical specialization, which can have a powerful impact on the course of business negotiations.

International business negotiation, itself, becomes a professional field, with its own set of cultural norms.

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## TRANSITION IN TERMS OF GLOBALISATION

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**Abstract:** One of the essential constituents of the term transition, in Serbia as well as in other post-socialistic countries, refers to the transition from one development concept onto another one (extensive and mobilising), which is completely different (market-based and innovation-oriented). Market behaviour rules have changed to a great extent, as well as the increasingly present innovations in the field of technology, and introduced certain innovations in business orientation of companies. The struggle for market share is becoming more aggressive and dynamic enabling the survival of exclusively those companies which have implanted high flexibility and innovation levels into their business ambience. Globalisation is inherent in capitalism, it is its constituent logic. In future, new rules will have to be brought which would allow of the management function to be performed within the complete business policy mutually agreed upon between the representatives of the capital owner and those of the personell. These regulations are necessary for long-term efficiency and profitability of private sector, as well as for the final success of economy.

**Key words:** *Transition, Globalisation, Business, Companies, Managers, Economy*

### **Transition in the world of globalisation**

The world's leading financial markets have been merged. People on our planet are more deeply and tightly connected than ever. The possibility of faster moving and reaching almost every, at least sparsely populated, part of the world has been increased. The possibilities of preventing poverty have also been created as well as of fostering world-wide health care system solidarity and human rights and nature

protection system, solving world's humanitarian crises and spreading knowledge. The world market transactions have been considerably increased.

Great information and communication technology possibilities have enabled a significant management cost reduction which has consequently enabled stronger interaction and exchange of goods, capital, information, ideas and knowledge by increasing people and process interdependence.

It is believed that it is still far from the objective possibilities as prerogatives of the smaller part of the world – the most developed western countries mostly. Notwithstanding globalisation process, the world is still clearly divided depending on the development level.

In terms of the structural reorganisation of economy transition implies the abandonment of the existing technologically outdated and economically inefficient structure (which produces insufficient production and employment growth rate, limited export supply, high import dependence, modest accumulation or none at all, disturbing insolvency and management losses accumulation, numerous internal deficits, high external indebtedness and the like) on behalf of a new structure based on scientific and technological progress, increasingly significant world market influence and available production factors (which provides the domestic economy competitiveness growth, its openness and full market recognition, fast application of technology innovations, increasing developing and balance of payments export functions, environment protection, that is creating atmosphere for dynamic and efficient economy

growth and flexibility in adapting to all internal and external challenges). The present-date market structure is not formed by one unique harmonious action but autonomous activities of companies, institutions and international economy systems. Therefore, a reasonable approach to internal and external adaptations at all levels by the means of export expansion and import liberalisation, regardless of the potentially distracting challenges is necessary in our conditions (in terms of global and regional as well as in branch and entrepreneurial plan).

Although the transition in most ex-socialistic East European countries leads into transferring into modern capitalism, it does not occur, in literal sense of the word, as the return from socialism into capitalism (i.e. the return to the beginning). Indeed, it is of no necessity to prove that modern capitalism has progressed much more in comparison with “capitalistic” ideology concept. Similarly, the transition in the majority of European postsocialistic countries is not played out by the scenario of authorities or experts of the International Monetary Fund but under the influence of concrete material and social circumstances<sup>1</sup>. Market transition is a “devil’s work” and that is why the first transition effects are regarded as unpleasant by certain companies and some branches of economy, certain regions, some social classes.

This leads to the conclusion that the transition onto the market economy implies already given social approval considering the fact that a potential foreign help can only partially reduce the burden of changes with no guaranties that the process of transition will be a successful one.

Transition implies the change of the old institutional infrastructure for the transition onto the market economy is not possible

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<sup>1</sup> Prof. dr Gojko Rikalović in the Book prof. dr Dragutina Marsenića “*Ekonomika Jugoslavije*”, Belgrade, 1999. Page 466.

without a corresponding legislation and appropriate institutions. The institutional infrastructure of transition has to be flexible since the mere transition process is very contradictory and unpredictable. It should be oriented on the processes for the organised economy-and-social life deregulation. Economies in transition insist on such a constitutional system that encourages changes, restricts state intervention to determined limits, enables free entry or exit of economy subjects, provides overcoming conflict situations and minimises transitional risks and costs, encourages entrepreneurship and business leadership, guarantees private property safety and following of agreements as well as liability for suffered damage<sup>2</sup>.

On our way towards the market economy structure another one almost unavoidable socio-economic obstacle has appeared in the form of a well-established so called socio-psychological infrastructure in these parts. The socio-psychological infrastructure refers to the unity of such cultural and economic habits and tendencies of the inhabitants of a particular area, existing in local traditions and way of life, appearing in, for the majority of its inhabitants, characteristic quality, intensity and work discipline, skill at mutual action in production process, receptiveness to the technology progress achievements, innovativeness, and finally work productivity level and its inherent dynamism<sup>3</sup>.

In order to achieve any kind of a more serious and significant progress toward transition it is essential to realise *the behaviour transition* of literally all participants in that process, regardless to whether they want it or not and whether they are aware of it or not. The behaviour transition has to have at least three parallel paths:

1. *Thinking transition* (to think freed from myths and exaggerated fascination with the

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<sup>2</sup> Prof. dr Gojko Rikalović, *ibid*, page 472.

<sup>3</sup> Prof. dr Gojko Rikalović, *ibid*, page 479.

past as well as with someone else's present);

2. *Feeling transition* (to be self-confident, optimistically concentrated on achievement, with no feelings of guilt and inferiority) and
3. *Action transition* (the orientation not only to effective and efficient but also ethical and aesthetic behaviour

Taking into consideration already mentioned suppositions it is possible to ask certain number of the important questions answers to which have to be sought whenever we want look into a particular transition process in a particular country. In the already existing extensive literature on transition problem, apart from the previously mentioned lack of the transition - technology connection and relation analysis there is a noticeable lack of high quality attempts of a *comprehensive transition analysis* which should provide answers to the following seven questions:

1. *Where to*, in which direction does transition go? The shortest possible answer could be: to a *better* therefore *more just* and *advanced* society. The closer elaboration of these attributes would insist on not only a thorough argumentation but also, above all, more sophisticated criteria of determining what is better for a society, on condition that it independently decides about that.
2. *Why transition?* Simply because all other former societies (not only socialistic but also capitalistic) have failed to be enough efficient, socially just as well as advanced in civilization terms, in compliance with the objective possibilities, especially those of technology.
3. *Who should be involved in transition?* To put it very briefly: everyone i.e. all the members of the society that has chosen transition as a form of a change.

In other words, transition is not a partial process in which only certain social reproduction activists are involved but literally everyone has to take part in this process. But likewise, transition cannot be completely successful if there is a tendency of realising it as an isolated, national change project without any changes in the wider international environment. If so, the transition remains just a mere adjustment or better say copying and mechanical replication of already existing solutions reached in some other and different environments. For that reason such attempts are nothing but ordered (octroyed) reforms from somewhere outside (!) strictly directed and controlled and always without enough of the necessary awareness of the reality and specific transition society needs i.e. the transitional globalisation.

4. *What is within transition?* And once again in the sense of the accepted holistic approach an answer imposes itself: everything.
5. *How long* should transition last? The precise answer to this question is understandably not possible not only because of the initial differences concerning all socio-economic development elements such as production, ownership, social and any other kind of structure, as well as other differences between different transitional societies but also because of the differences in depth and width i.e. the intensity of transition efforts. The last is mainly influenced by the power of political will i.e. the readiness of the political (state) leadership of certain countries to fast, deep and comprehensive transition realisation. In other words, the transition duration depends mostly on *when* it started or so to say on the duration of its belatedness. Essentially every transition is a

subsequent thus more or less belated response to the challenges of the environment changes so that any kind of hesitation and possible delay only contribute to its prolongation, increases the costs as well as social tension that is mounting because of the belated changes. However, it has to be mentioned that actually transition as a process of ongoing changes and transition from one state into another cannot and should not be completed. It is as old as people, just we have recently started calling this process “transition“. In conclusion, it really refers to every country and by no means exclusively to so called post-socialistic countries. Or all the others think that they have lived to see the end of "history"<sup>4</sup>.

### **1.1. Globalisation process has following significant characteristics:**

- Globalisation is an evolution process for it follows the pattern compliant with the general evolution system theory. Globalisation is realised with two important mechanisms: innovation generation mechanism and competition ability development and innovation selection mechanism.
  - Globalisation is realised by the means of localisation. Globalisation is a process that is constantly widening its scope.
  - Globalisation as a change generator is both disturbance and modernisation process. As the disturbance process it changes the distribution of seeming and real winners and losers and so generates resistance and support.
- Globalisation as any other evolutive process leads to the increase of variety and competitive ability of the concerning variety elements.
  - Globalisation, in terms of economy, leads to the increase of prosperity sooner and more efficient than any other process because, globally, it implies “the best possible“ division of labour.
  - Globalisation is a process with competitive elements so that the less wise, capable and efficient elements are smaller relative winners (or bigger relative losers) in globalisation outcomes
  - Globalisation is an artificial, mobile, man-and-community shaped, directed and realised process so its functionality, quality and effects can be assessed only by their value
  - Distribution of power is one of the essential constituents and objectives of the globalisation process.

It is true that economy trend globalisation definitely has different consequences on certain countries. They depend on the accomplished development level of a particular country, complete cultural -customary heritage and possibility of adopting modern tendencies especially in the field of high technology diffusion. The political system of the country contributes to this to a great extent.<sup>5</sup>

Globalisation of production (industrial, above all), investment and service seriously affects the economic and social development of all countries i.e. even the most developed ones. It

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<sup>4</sup> Prof. dr Slobodan Pokrajac, Transition and Tehnology, TOPY Belgrade, 2000.god.

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<sup>5</sup> Prof. dr Slobodan Pokrajac “Tehnologija, tranzicija i globalizacija”, Belgrade, 2002.g; “Tehnologizacija i globalizacija”, Belgrade, 2002.g. and “Gobalizacija između globofilije i globofobije”, Samizdat, Belgrade, 2002.g.



foregrounds the multinational companies and their interests. A new transitional technologically-sophisticated corporative “culture“ is gradually being created. This “type of production“ is gradually reducing the strategic importance of the national regulatory rules. Internationalisation of production and finance is constantly reducing the possibility of a nation to manage economic and other trends.

No matter how hard central banks and ministries of finance try to impose mechanisms for capital flow financial control they are becoming increasingly “conditioned“ and decreasingly controlled. The same applies to both investments and industrial production development strategy i.e. employment as well. Conversely, instead of national strategy, local communities are becoming the basis of the competition strategy. Certain regions compete between themselves intimidated with the possibility of losing jobs (employment) i.e. possibility of the reduced participation in the production of the part of “ the world product“. “Total industrial product“, by which the system of need at global level can be satisfied at “historically conditioned level“ can be realised with the use of far smaller amounts of labour than offered. The run for “participation“ in production begins by provision of “labour service“.<sup>6</sup>

The basic generators of technology globalisation represent the tendency of using developingly and economically more efficient production techniques and more market-appealing products. These tendency can be realised, starting from some date in the development history, only by increasing the number of the technology users. In short, profit is the basic globalisation generator here.

Resistance to expansion and globalisation of technology is one of the most interesting aspects of the technological as well as entire

development. The technologies that have dominated the body of systematic (scientific) knowledge and have been built in physical carriers globalise easily whereas those technologies in which the body of tacit (non-transferable) knowledge predominates globalise with difficulties.

## CONCLUSION

The vitality of our economy and its future foreign market position will largely depend upon the ability to quickly and efficiently respond to the two significant world challenges: process of technologisation and globalisation i.e. ability for permanent internal transformations in accordance with major world technology and economy trends.

Globalisation is inherent in capitalism; it is its constituent logic. Globalisation is in many aspects the result of the economic laws of the capitalistic economy. Today, globalisation is one of the widely spread economic phenomena. It is a school of economic thought opposed to Keynesianism, that accepts the standpoints of the leading theorists of the classical school of economic thought. Classical capitalism seems to have survived. The same is also completely true for socialism as we perceived it in a form of state socialism. A new society is coming. What will be its name is still unknown. It can be said that, presently the closest name for that society, due to the already mentioned changes, is information society that is followed with what is today known as the society of knowledge and that heralds the beginning of a new scientific civilisation.

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## FORMULATION STRATEGY UNDER THE INFLUENCE OF POWER COMPETITION

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**Abstract:** In this work, the subject of the research is defined starting hypothesis that formulation in the form of answers to the question: What factors - competitive forces shape strategy?

Strategy formulation essentially boils down to competition. Competitors are all - customers, suppliers, potential new entrants to the market and producers of substitutes - and depending on the industry, may be more or less important or active.

The first primary determinant of a firm's profitability is the attractiveness of the system to which it belongs. Competitive strategy must be developed from the basic knowledge of the rules of competition that determine the attractiveness of an economic system. The ultimate aim of competitive strategy is to apply, or - ideally - a change these rules in favor of the company. In any economic system, regardless of Whether it is domestic or international, and Whether products or services, the rules of competition are embodied in five competitive factors, the five basic forces: the entry of new competitors into the market, the threat of substitution, bargaining power of the buyer, bargaining power of suppliers and rivalry among existing competitors. Joint strength of these forces determines the ultimate potential of an activity to make a profit.

**Key words:** *strategy, competition, business excellence*

### 1 INTRODUCTION

Competition in an industry depends on the following factors that determine competitive power: the entry of new competitors into the market, the existence of substitutes, bargaining power of customers and suppliers, the rivalry among existing competitors. [1] Accumulated power of these factors defines the ultimate possibility of a region and branch of activity to achieve positive financial performance. It ranges from intense in industries such as the production of tires, cans and steel, where no company achieved spectacular returns on investment to moderate in industries such as oil exploitation and production of appropriate equipment, or production of soft drinks and

cosmetics where there is room for a fairly high yields. However, as the force, taken all together, the weaker, the more likely to achieve above average business results.

Whatever the joint strength of competitive forces, the goal of corporate strategy is to acquire a position in the industry in which the company can best defend himself from them, or to influence them to act in their favor. Joint strength of these forces can be more than obvious to all opponents, but that would come with them to the end, strategist must delve into the matter and to individually analyze their sources. For example, why a particular industry is sensitive to the emergence of new competitors? What determines the bargaining power of suppliers?

Knowledge of these basic sources of competitive pressure provides the basis for a strategic action plan. These sources indicate the most important strengths and weaknesses of the company, affecting the positioning of the company in its field, indicate the areas where strategic changes may be the most that payments and point out where the trends in the industry promise to be the most important in a good and bad sense.

The five factors that determine the profitability of the segment, because they influence the prices, costs and investments needed, ie, the elements of return on investment. The performance of each of the five factors that affect the competition depends on the structure of the segment, of its fundamental economic and technical characteristics. When the five factors - force competitiveness and their structural determinants depended exclusively on the internal characteristics of the segments, competitive strategy would be largely based on the excellent choice of the segment and a better understanding of these five factors of competitors. Although both of these things are certainly important, and in some segments of the economy are the essence of competitive

strategy, the company usually is not a prisoner of the structure of the segment to which it belongs. Their strategies and the company may affect the competitiveness factors. If it is able to shape the structure, the company may fundamentally change the attractiveness of the segment for the better or for the worse. [2]

In every economic segment not all five factors-force will be equally important, and special factors characteristic of the structure of the segment, each will vary. Any commercial segment is specific and has a specific structure. Framework that includes all five factors to firms that, despite its complexity identify and choose those that are most important for the competitiveness of its economy segment, as well as to identify strategic innovations that will largely improve its profitability, but also the profitability of the business segment. The aforementioned framework does not eliminate the need for finding creative new ways to compete in that segment of the business that is most important for long-term profitability. This time frame usually increases the possibility of discovering desirable strategic innovation.

## **2 STRATEGY AND ORGANIZATIONAL STRUCTURE**

Strategies that alter the structure of the segment can be double-edged sword, because as you can to improve, the company may destroy the structure and profitability of the segment. For example, a new product design that breaks through barriers to enter the market or increase uncertainty rivalry may undermine the long-term profitability of the segment, despite the initiator of these changes initially achieved higher profits. Also, keep lowering the price could jeopardize differentiation. For example, the tobacco industry generic cigarettes pose a serious potential threat to the structure of the segment. Generic products may increase the sensitivity of buyers to price, to encourage applications to raise prices and reduce advertising price barriers to entry of new firms into the market.

Companies often make strategic decisions without thinking about the long-term consequences for the structure of its business segments. They see improving their

competitive position if the move proves successful, but fail to predict the consequences of the reaction of competitors. If you support any moves by major competitors cause destruction of the structure of the segment, they will be damaged. These "breakers" of the segment are usually second-rate companies that are trying to overcome their biggest competitive disadvantages, companies are faced with serious problems and are desperately trying to get rid of them.

The ability to shape the structure of the segment imposes a special responsibility to companies that are leaders in their respective business segments. Activity leaders can have a disproportionately large impact on the structure, due to their size and impact on customers, suppliers and other competitors.

At the same time, their large share of the market ensures that what is changed the overall structure of the segment, whatever that is at stake, and the influence on themselves. Therefore, leaders must constantly balance between their competitive position and performance of the segment as a whole. They more often achieved when taking measures that improve or protect industry structure rather than just harder when acquiring greater its competitive advantage. This principle was followed leaders such as Coca-Cola and Kembels sups. [1]

## **3 RISK OF NEW COMPETITOR**

New competitors enter the industry new capacity, the desire to gain market share, and often substantial resources. Companies that diversify, and that the other markets through acquisitions, entering into a new business, or frequently use their resources to elicit requirements, as it once did SIMPO chocolate "Simka".

The seriousness of these threats depends on the existing barriers and the reaction of existing competitors that the new company can expect. If that entry barriers are high, a new company can expect severe retaliation from established competitors, there will be no serious threat of the emergence of new competitors.

There are six major entry barriers:

1 Economies of scale. It deters entry by the interested forces or to engage in large scale or to accept inferiority in the sphere of the cost. Economies of scale in production, research, marketing and services probably represents the biggest barrier to entry in production computer. Economies of scale can act as a barrier in the distribution, use, sales staff, funding, and almost all aspects of the business.

2 Product Differentiation. Identification brand creates a barrier by forcing new firms to huge investment in order to overcome customer loyalty. Factors influencing the identification of brands are advertising, customer service after the purchase, the best in the sector and specialty products. This is perhaps the most significant barriers to market entry beverages, drugs that are sold without a prescription, cosmetic products, investment banking and public accounting. In order to disassociate themselves high fences, beer manufacturers identification brands enhance economies of scale, which is used in the production, distribution and marketing.

3 Requests for capital. The need to invest large financial resources to be able to compete, it creates an entry barrier - especially when the necessary capital expenditures that can not be compensated for, say, commercial or research and development. Capital is necessary not only for fixed assets but also for lending to customers, as well as stocks and absorb initial losses. While larger corporations have the financial resources required for entry into almost every industry, huge capital needs in certain areas, for example in the production of computers or in the extractive industry, limiting the number of potential new companies.

4 Cost inferiority regardless of size. Already established companies can enjoy cost advantages that their potential competitors are available regardless of the size or economies of scale. These benefits may arise from the effects of the learning curve (as well as her nearest curve starts), patented technology, access to the best sources of raw materials, purchased the property at the prices before inflation, government subsidies and favorable location. Cost advantages can sometimes be legally provided as in the case of patents.

5 Access to distribution channels. A new competitor has, of course, to provide for the distribution of its products and services. For example, a new food product must be squeezed off the shelves in the supermarket the other similar products - any cost, either through promotion, intensive sales activities or otherwise. As wholesale and retail channels more limited and they were existing competitors took over, it will obviously be heavier and entering the relevant activity.

6 Government policy. Entry into certain branches of government can limit or even stop using instruments such as the requirements for owning a license, or restrict access to raw materials. Regulated activities, such as road transport, alcoholic beverages and shipping services, are familiar examples. The state may also play an important indirect role by influencing the entry barriers through instruments such as environmental standards relating to the protection of water and air regulations with regard to safety.

#### **4 ENTRY BARRIERS**

In recent years, the experience curve was discussed as the most important element of industry structure. In line with this concept, the unit cost in many processing industries, as well as in some service industries, reduce parallel with the acquisition of "experience" or a special cumulative production volume of the company. The causes of the reduction in unit costs lie in the combination of different elements, such as economies of scale, learning curve for labor and capital for labor substitution. Reduction in expenses creates an entry barrier because the new competitors who do not have "experience" faced with higher costs than the current - especially when it comes to the manufacturer with the largest market share - and it was not easy to catch up with existing competitors.

Proponents of the curve starts to emphasize the importance of maximizing the entry barriers at achieving leadership position in the market and recommended aggressive action for its implementation, for example, a reduction in price in anticipation of cost reductions to achieve of size. If costs are reduced thanks to a company that is increasing reap the benefits of

economies of scale because it uses a more efficient automated equipment and vertical integration, then the cumulative volume of the output of irrelevant to its relative cost position. Here is the cheapest one manufacturer that has the largest, most efficient plants.

New competitor could easily be more effective than their more experienced colleagues - if you built a modern plant, will have to try to catch up. Decreasing cost, which monitors the cumulative volume raises entry barriers depends on the reasons for this decrease. If costs are reduced due to technological advancements that are generally known in the industry, or due to the development of sophisticated equipment that can be copied or bought from suppliers, the experience curve does not represent an entry barrier - in fact, new or less experienced competitors can achieve a cost advantage in relation to the leaders. Since it is not burdened with large investments in the past, the new, less experienced competitor can buy or copy the latest and cheapest equipment and technology. In the event that the experience can be patented, the leaders will hold a cost advantage. However, new competitors to reduce costs may be needed less experience than is needed leaders. All this suggests that the experience curve is not safe barriers where you can build a strategy.

There are a few essential elements for determining the suitability of these strategies based on the entrance barrier, which provides fault of experience:

- Size barriers depends on how much they cost, compared to other areas - such as marketing, sales and innovation, greater competition.
- Barriers can be completely neutralized when there are product or process innovation, which leads to a rather large technological changes, creating an entirely new experience curve. Entrants can skip the leaders in the industry and to rely on the experience curve, to which these leaders, given their position, they can easily be reoriented.
- If your strategy on the curve starts to build more than one strong company, the results can be almost fatal. Then when you only have one competitor who carried out such a strategy, it is possible that the growth of the sector to be

stopped, and that the prospects for reaping the fruits of victory, has long ceased to exist.

## **5 NEGOTIATING POSITIONS OF BUYERS AND SUPPLIERS**

Their bargaining power in relation to other actors in an industry vendors can express by increasing prices or reducing the quality of services and products to be purchased. Powerful suppliers can thereby reduce the profitability of the activity if it is not able to compensate for the increased costs through its own prices. By raising prices, manufacturers concentrate for non-alcoholic beverages contributed to the erosion of the profitability of the companies that were bottled, because these are faced with tough competition concentrate powder, fruit and other drinks, had little space to adequately raise their prices. Customers also can bring down prices, to demand better quality and better service, and cause conflict within competitors - all at the expense of profits in the industry.

Power of each important group of suppliers or customers depends on the characteristics of the market, as well as the relative importance of sales in the industry, or the purchase of it compared to their overall business.

Group of suppliers is strong in the following cases:

- When it is dominated by a few companies, and when its concentration is higher in comparison to the sector where sales.
- When her product is unique or at least differentiated, or if the costs imposed reorientation. Costs reorientation fixed costs with which customers face when change suppliers. They arise, inter alia, because the buyer's specifications are such that they "bind" for certain suppliers, or because the buyer has invested heavily in specialized ancillary equipment, or training for the use of the suppliers of equipment (in the case of computer software), or the customer's production lines associated with the supplier's production facilities (as in the case of some manufacturers of packaging for beverages).
- When a supplier is not required to compete with other products in order to sell a particular activity. For example, the competition who will be able to sell products manufacturers

AVOJ cans - steel producers or manufacturers of aluminum - it limits the power of suppliers.

- When is a credible risk that it could be integrated forward and begin to operate in the industry it belongs to a certain activity.

- When the sector is not a significant customer for the supplier group. If the important customer, suppliers will be the fate of her tightly bound and will therefore want to protect the reasonable price and providing assistance in activities such as research and development and lobbying.

Customer group is strong in the following cases:

- When concentrated, or when buying huge quantities. The big buyers are particularly strong forces if the branch characterized by high fixed costs - as is the case in the production of metal packaging and chemicals in bulk, or in the processing of corn - which raises the stakes in conjunction with the full usage of capacity.

- When the products they buy from a sector standard or undifferentiated.

- When the products we buy from the sector represent a component of its products, as well as a significant portion of its costs. Customers are likely to insist on low prices, and buy selectively. When a product that sells slightly sector participate in the costs of customers, they will be much less sensitive to price.

- When you have low profit, which creates a strong incentive to reduce the cost of your purchases. However, it is very profitable customers typically are less sensitive to price.

- When the product of the sector is not significant for the quality of customers' products or services. When the quality of customers' products is greatly influenced by the product of the sector, buyers are generally less sensitive to price.

- When customers represent a credible threat in terms of backward integration capabilities, which enabled them to produce products of that industry. "Big Three", the three largest automobile manufacturers, and large car buyers, often in negotiations threatened to kill themselves begin to produce something. However, the observed sector can sometimes threaten customers that its members integrated in advance.

## **6 EXISTENCE SUBSTITUTE**

By determining the ceiling price that can achieve, substitutes, both products and services, limiting the potential of one branch. If you can not increase the quality of the product, or to in some other way (such as marketing) is differentiated, the branches will have problems with income and growth. [3]

What is attractive substitution ratio in relation to the behavior of prices offered by substitutes, the ability to grow profits in the sector, it will be more limited. Sugar producers, faced with massive sales of corn syrup, high fructose, or substitutes for sugar, just today with this face.

Substitutes not only limit profits in normal times, but also reduce the possibility that the rise in activity achieved exceptional profits. In 1978, the manufacturers of the insulating material of glass wool have experienced unprecedented demand due to high energy prices and a harsh winter. However, the possibility of these activities to raise prices stymied countless substitutes - such as the insulation materials from the pulp, rock wool and polystyrene.

The greatest strategic substitutes deserve attention when (a) subject to the trends that promote substitution ratio price behavior substitutes and their performance in relation to the product sector, or when (b) the product branches that generate high profits. Substitutes are often quickly come into play when something happens in sectors that produce them intensifies competition and reduces prices, and improves results.

## **7 EXISTING COMPETITORS**

Rivalry takes place known as maneuvering for positions taken by tactics such as applying pricing, new product launches and the "war" commercials. Intensive rivalry is associated with the presence of several factors: [4]

- There are a large number of competitors of the same size and power.

- Growth in the sector has been slow, leading to a fight for market share.

- The product or services are not differentiated and do not impose costs reorientation, which connects buyers and protect a stakeholder from the attacks of others to his clients.

- Fixed costs are high or the product is perishable, we strongly encourage the reduction of price.

- Exit barriers are high. Barriers to exit from the market, as a possible reason for the commitment of management for a particular type of business, forcing companies to still apply - regardless of the fact that on its investment is low or even negative returns. Excess capacity is still functional, and profitability of successful competition becomes compromised because the disturb unsuccessful. If all branch suffers from excess capacity, it is possible to seek help from the government - especially if the present foreign competition.

As the sector matures, changes and their rate of growth, leading to reduced profits, and often to the elimination of some firms. At the beginning of the seventies, when the industry is right for recreation flourished, almost every manufacturer has been successful; However, the subsequent slower growth reduced the high returns to all but the strongest, especially the many weaker companies.

The same story appeared on the profit and other sectors - manufacturing of sports equipment is just one example.

## **8 FORMULATING STRATEGY**

The strategy determines the basic direction and method of implementation of the goals and achieve the purpose of the organization. Formulating a strategy involves finding alternative solutions (strategies), and selecting the best strategy, ie. Optimal strategy - the best in the circumstances, which will be implemented. It is necessary to emphasize that the strategy formulation continuous process, a process that is carried out in accordance with the dynamics of the relevant requirements (externally or internally conditioned). Successfully formulate strategic options involves respecting all relevant factors, in particular the vision, mission and goals, one on knowledge obtained SWOT analysis, on the other hand. In formulating strategies, managers need to pay special attention to the needs of consumers. And not only by establishing that closer communication with consumers, but also through the creation of

common values that are important for both partner side.

Implementation of the strategy is the implementation process of the selected strategic options. This process, as a result, a strategic change. Under the strategic changes imply changes in all the performance of the organization they represent an adequate response to the challenges of the environment. According to the Model "7-S" [5], which has created a consulting organization McKinsey, strategic change involves a change in the following variables: Structure (structure), Strategy (Strategy), Systems (systems), Style (style), Staff (Staff), skills (abilities) and shared values (shared values).

## **CONCLUSION**

The strongest competitive factor determines the profitability of a business, and it is therefore of paramount importance to strategy formulation. For example, even a company with a strong position in the industry that do not jeopardize the potential will achieve low yields when faced with better or cheaper substitute - as well as to learn the leading manufacturers of vacuum tubes and coffee maker. In such a situation, coping with the substitute becomes a strategic priority.

Of course, in every action for the establishment of significant competition other forces. The production overseas tankers most important force presumably represent customers (major oil companies), while in the tire industry to not only powerful buyers from among the automobile manufacturers, but also fierce competitors. In the steel industry the most important forces are foreign competitors and substitutes.

Each branch has its basic structure, or a series of fundamental economic and technical characteristics that encourage these competing forces. If you want to position the company so that work best within your industry, or the environment to influence one's own advantage, strategists need to understand what drives a particular environment.

Modern market demands enormous efforts in order to realize a competitive advantage. The fundamental aim of modern business is to achieve operational excellence and



achievement of world-class products and services. This can be achieved only on the basis of continuous improve the quality of the company's business, which is based on increasing the productivity of labor and knowledge of each person employed in the company. Continuously improving the productivity of knowledge work and is the main imperative of the modern economy, and certainly the most important factor in the competitive struggle of companies in today's market.

This view of competition applies equally to service activities and the sale of products.

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## TRAINING AND DEVELOPMENT STANDARDS FOR FRONT OFFICE EMPLOYEES IN MODERN HOTEL INDUSTRY

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**Summary.** Specific requirements of modern consumer-tourists, competition, new sciences and technology have led to the emergence of new products and services in a modern hotel business as well as prescription of training and development standards for employees and managers in the hotel groups and independent hotels of higher rank. Every serious hotel, in order to survive on the tourist market, must have a separate program (standard) of training and development for employees and managers. General hotel management, particularly human resource management, is fully responsible for the development and implementation of the program (standard) of training and development of employees and managers. In this paper, I will write about the basic features of modern hospitality and fundamental stages of training and development of hotel employees and managers. In a particular part, I will write about front office department and training and development standards of front office employees and managers.

**Keywords:** *hotel managements, training, development, employees, managers, reception*

### 1. INTRODUCTION

Changes in market concepts, technology, organization and management have resulted in the emergence of the need for training and development of employees in the modern hotel industry. Training, as the process of acquiring new knowledge and skills necessary to perform duties and tasks, must represent an important strategy in business policy of general management and human resources management. The development of employees and managers, as well as acquiring new knowledge and skills necessary for more complex and demanding tasks, are an important intellectual capital in the hotel business. For any serious hotel facility, training and development of employees and managers represents building competitive advantage because any investment in knowledge and skills development becomes

the most effective way of investing in hotel products and services quality.

### 2. BASIC CHARACTERISTICS OF CONTEMPORARY HOTEL INDUSTRY

‘The term hotel industry implies the part of hospitality industry that is specialized in providing accommodation services, whose main representatives are hotels, motels, aparthotels, resort tourist suites and pensions.’ (Marošević, I., 2011). ‘Hotel industry (in economic way in market conditions with the goal of realizing commercial effects) offers accommodation and other hotel services in hotelier way, in order to meet the needs and motives of guests (visitors) and ensure security of life standard to the staff and management’ (Cerović, Z., 2003). ‘During a temporary stay in the hotels facilities in chosen destinations, hotels offer rest and relaxation to tourists, achieving business contacts to business people, conditions for constructive work to participants of congresses, seminars and various other professional, scientific and political gatherings, exploration of natural attractions and cultural and historical monuments to hikers and tourists; and services of food and beverages to local people, as well as various entertainment contents’ (Bunja, Đ., 2008). Contemporary needs, requirements and desires of the consumer – tourist (greater need for preserving health, emphasis on ecology and healthy food, stay in pure nature, the growing demand for convention facilities and incentive offer, visits to big sport, cultural, religious, and business events) led to the creation of new products and services in the hotel industry. Current products and services include:

a) Wellness&spa services (wellness&spa philosophy includes: face and body care, health promotion with various wellness&spa methods, mental training and special wellness diet)

- b) All inclusive' products and services (rich integral buffet breakfast, lunch and dinner, afternoon and late night snack and a variety of sports and recreational facilities)
- c) Redesign of hotel rooms and suites (contemporary consumer likes to stay in the newly renovated rooms and suites)
- d) Hotel animation (every serious resort hotel, if wanting to meet modern demands and needs of tourists, has to pay special attention to this important part by drawing up a variety of attractive and entertaining contents for all age groups)
- e) Websites and online booking (the website which hotels introduce themselves on to guests are getting richer and have more contents, and offer the possibility of online searches and reliable hotel services and products booking)
- f) Ecology (contemporary consumers are becoming more socially and environmentally conscious so they want to know all environmental policies that hotels have, and in which ways they help the community and that way they return the money they earn)

Based on the above mentioned, it can be concluded that the modern hotel standards stand out from other related activities in the sphere of accommodation services by constant maintenance of quality and by introducing new types of services, all in order to increase the quality of basic services and meeting the accommodation needs of the modern consumer.

### **3. TRAINING AND DEVELOPMENT STANDARDS OF MODERN HOTEL EMPLOYEES AND MANAGERS**

Specific needs of the modern consumers-tourists, competition and new sciences and technology have led to prescribing standards of training and development of employees and managers in the hotel affiliations and independent hotels of lower or higher categories. Hotel management, particularly the management of human resources, is fully responsible for standardization, i.e. the design and implementation process of training and development of employees and managers. 'Basic groups of activities and tasks, and specific (sub)functions included in human resources management are: strategic

management of human resources, staff planning, duties analysis and design, selection of candidates, monitoring and performance evaluation, motivation and rewarding, training and development of employees, creating appropriate organizational climate and culture, social and health protection, labour relations, and a variety of services for employees.' (Bahtijarević-Šiber,F.,1999).The process of training and development is a complex character and can be divided into four main phases: analysis of training and development needs, training and development drafting, implementation of training and development program and evaluation of completed training and development.

1. Training and development needs analysis includes: identification of actual knowledge and skills of new hotel employees and he need for additional (professional) training of already employed (old) staff and managers. Human resources management is responsible for these activities, and it has the obligation to inform the general management about analysis results of training and development needs.
2. Training program drafting stems from the previously conducted analysis on the basis of which human resources management and general management determine the following: objectives and contents of training and development of employees and managers, the program (standard) of training and development of employees and managers and methods of training and development of employees and managers.
3. Implementation of training and development of employees program is long and continuous process which include: a variety of methods of training new employees (individual instructions, apprenticeships, internships, mentoring) and various methods of development of old employees and managers (professional trips, lectures, seminars, conferences).
4. Evaluation of training and development of employees represents the control of realization of objectives and programs, as well as evaluation of trainees satisfaction (of new and old employees and managers)

Hotel standard of training and development represent an increase in

knowledge and skills of employees and managers, and increased efficiency and competitiveness in a demanding tourist market to hotel facility.

#### **4. TRAINING AND DEVELOPMENT STANDARDS FOR FRONT OFFICE EMPLOYEES IN MODERN HOTEL INDUSTRY**

‘The task of front office department in a hotel is to ensure all prerequisites for optimal utilization of accommodation, maximum satisfaction of needs and desires of guests regarding accommodation or other services while staying in a hotel.’ (Kralj, B., Štefanec, M., Štefanec, J., Gavranić, D., 2001). Front office department is of great importance because of functions it performs and its influence on the financial success of the business. The business scope of the front office depends on: the type of the hotel, the intensity of capacity utilization (especially in accommodation) and periods in which hotel operates (seasonally or throughout the year). Duties and work assignments of front office in hotels of higher rank define standard organization of the department: management (front office director, front office deputy director), reception (receptionist, check-in attendant), reservations department (reservation attendant, correspondent), telecommunication services department (telephone operator) box-office/exchange (treasurer, exchange clerk, billing clerk), main lobby (day and night door attendant, porter, concierge, elevator attendant, greeter). Duties of the reception department can be divided into four groups:

1. Services prior to arrival (marketing activities, booking, business correspondence, arranging...)
2. Services upon arrival (determining rooms, reception of guests and taking personal documents, escorting guests to rooms or suites, opening the accounts..)
3. Services during guest’s stay (wake-up calls, messages and parcel delivering, expenses tracking, organizing trips...)
4. Services on departure (hotel service charges, escorting guests to the exit from the hotel, transfer services...)

Due to specific requirement of the modern consumer-tourist, new trends and competition, front office department in hotel groups and independent hotels of lower or higher ranks prescribe specific standards for the training and development of employees. Head receptionist and human resources management are fully responsible for development and implementation of those programs (standards). The training of employees of the front desk department must be realized through the following basic steps:

1. Introduction to personal hygiene and dress code of the hotel
2. Introduction to organizational affiliation standard. ‘Employees often share their dissatisfaction with the administration, personal income, personal relationships working hours with guests, especially those guests they have established close relationship with. It is an extremely unprofessional approach to business, which tarnishes company’s reputation, and employee’s personal reputation as well.’ (Tomašević, A., Kalinić, M., Bareza, S., 2009).
3. Introduction to behaviour towards hotel guests standard. ‘The guest is the most important person in the hotel, towards whom the respect and politeness should be shown in every circumstance and in every area.’ (Galičić, V., Ivanović, S., Lupić, M., 2006). ‘When a guest makes an observation, complaint or praise, he/she has to be heard with respect.’ (Galičić, V., Laškarić, M., 2011).
4. Introduction to communication among employees standard. ‘Communication among employees is considered to be the part of the work, which aims to create high level of good interpersonal relations among employees.’ (Marošević, I., 2003).
5. Introduction to working position within the front office department. Front office director is fully responsible for this phase and is responsible for providing mentors for new employees.

The program of development for existing employees of front office department must contain:

1. Various study and professional trips
2. Second language improving

3. Various seminars in the sales psychology, communication culture, modern marketing activities and quality in hospitality

4. Different hotel and tourism congresses and conferences

Standards of training and development for front office department employees have to represent the part of the business strategy of every serious management in contemporary hotel industry because front office department is where the first and the last contact with hotel guest is established and the information centre during guest's stay at the hotel.

## **5. CONCLUSION**

Due to the specific requirements and needs of consumers and tough competition in the demanding tourism market, standards of training and development for employees have to become an important component of the mission, vision and goals of each entity in modern hotel industry. General hotel management in collaboration with the human resources department has to develop programs of training and development for every hotel department and systematically monitor the implementation thereof through prescribed stages. General hotel management must identify appropriate training and development programs for every hotel department because each one has a number of business specifics.

General hotel management, especially the human resources department, must develop a special program (standard) of training and development for front office department because it includes a variety of complex tasks prior to guest's arrival and during guest's stay at the hotel.

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## CULTURAL NEEDS AND THEIR IMPACT ON THE TRANSFORMATION OF CONTEMPORARY URBAN LIVING IN MACEDONIA

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**Abstract:** Cultural needs are subject to monitoring of urban planners, leading to satisfying end-user. In Macedonia, Skopje or objects with their cultural use are part of the urban growth area of the city, located in the highest concentration in the downtown area (Chifte hammam, hammam Dauth Pasha, Cultural center -Small Station, Old Railway Station, Museum of the Macedonian Struggle etc.). Cultural needs and bring change within the ethnic landscape transformation, where different ethnic groups, acting under different social worlds. The impact is especially significant in the social sphere, the existence of multiculturalism changes in space, use of eco urban systems, respecting the urban landscape, which are supplemented by meeting the cultural needs of the urban environment.

**Key words:** *culture, landscape, historic building, space, multiculturalism*

### INTRODUCTION

Within the work of architects, planners and urban designers are the social needs of the population, which are realized within poor urban environment. The real needs of users in an urban environment, according to certain norms, can disrupt such a problem with the social dimension. Adoption of programs as part of cultural expectations, although part of the policy planning are part of human rights in the urban environment. It's the minimal representation of the community in the creation of habitats. Residents made daily efforts to achieve a better environment, to improve productivity and development of each individual, which creates a certain potential of the community as a whole. The urban space meets the cultural necessity of identity, connection to community, recreational opportunities, leading to a certain level and status. Cultural needs are subject to monitoring of urban planners, leading to satisfying end-

user. Cultural needs are universal dimension, which finds its place in urban design in different productive areas. Mainly relating to the aesthetic qualities of urban design, spatial characteristics of urban design, social union, physical environment with its own identity, creating the identity of the place, a peaceful place to live, healthy living and social community, the opportunity to create privacy in places the dense urban structure, security, to improve the conditions of the urban environment.

Urban areas may have an impact on society, especially when they are a physical manifestation of cultural expectations. Towards this purpose and builds social interaction within urban social spaces, as imperative in urban planning. According to the formulation of *place identity*, usually formed from the physical aspect as defined territory, as the center of a particular ethnic group, which may occur more frequently in big cities. The urban concept of Skopje is divided into two parts by the river Vardar, as the old historic part of the city, a new urban character experiencing expansion in the 20th century, in the period after the earthquake in 1963. The concept of the development of cultural facilities is held in two parts. The historic part of the city usually adapt historic buildings for cultural purposes, while new facilities are built in the modern part of the urban whole. Due to the high density of cultural monuments there is a connection to their location in relation to urban structure.



Fig.1 Plan of Skopje, central area, the cultural facilities

### Cultural needs in the Urban Space

The identity of a place suggests architectural space, which helps to orient residents to the urban environment. The perception of social space, creating a sense of security. Under the compactness of the city, urban environment with traditional historic core, is a function of the mobility space, traffic, movement of vehicles and pedestrians, in addition to cultural needs. Because of population density and intense traffic in compact cities reduces the feeling of security, because of the proximity of neighbors, threaten the standard of living and health. Quality of urban life means meeting the personal right to privacy, as well as out of the monotony by providing recreational activity, achieving spatial hierarchy of the open system. The physical distance from home to the central urban area, on the objects of culture, determines the quality of urban life, that way you overcome the distance of space. The particular form of linear morphology traffic corridors, similar to some organic forms, which are implemented as details in urban projects. In planning the urban environment with high density, population planning, sustainable environments are designed to not jeopardize the objectives of spatial planning. In areas of high development, in terms of spatial quality, sometimes achieved negative results in increased social and economic costs. By understanding the obvious examples of cultural influences on urban space, through historical examples, they affecting at

urban concept of designers as they respond positively to the needs.

In Macedonia, Skopje or objects that take feature in the cultural part of the urban growth area of the city, are located in the highest concentration in the downtown area. I'll mention a few specific examples of adaptation of archaic historic buildings that have been adapted, revitalized as the gallery.

*Chifte - Hammam* is a work in long time has been neglected, closed in densely constructed buildings in the Old Bazaar. The primary function of a public facility that was built in the 15th century (the Isa Bey ) initially function as a masjid and madrassa, as hammam and later as part of the Ottoman system of central concept of the urban core. By providing access to the facility today it comes to the fore its monumentality and functionality. Neglected feature during the second half of the 20th century, enabling of the facility to preserve as a historical building in its authentic form. With its revitalizing process this area is involved in cultural events in the city, organized by the gallery business, fairs and other cultural events. Thus this object gets active function within the buildings of the same period, inns, bezestens, complex of Old Bazaar etc.

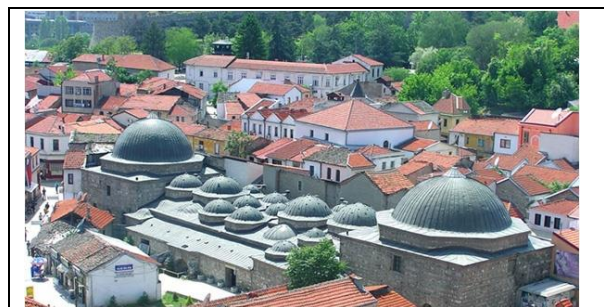


Fig.2 Chivtehammam-gallery, Skopje

*Daut Pasha Hamam* (15th century) was adapted into the gallery space and repaired after the earthquake of 1963, which constantly maintain a stable structural - architectural feature. Although it is set on the border between old and new urban part of the city, as object linking spatially due to its position on communication intensive pedestrian, as he fits in the old historic core. While it is embedded in the ground, he dominated set free in their immediate environment. From urban functional

standpoint, the building has a prominent place in the development of the historic core, connecting more vital pedestrian routes of movement. Thus hammam is an example of a successful project to revitalize the historic building, which took place over a long period of time, as the observed impact on the cultural promotion of the city. Inside is administration area, and space on the National Gallery and the permanent exhibition of contemporary art.



Fig.3 Daut pasha hammam -galery, Skopje

*Old Railway Station* is a central place as a recognition memory of the city, as a remnant of symmetrically shaped object. The memory is a form of connection of the damaged building, which reminds of the 1963 earthquake. Left in such architectural form, is adapted to today's museum. Its function to meet the cultural needs, but also a symbol of recognition of a key period for the development of urban planning for the city, makes this important facility, connecting the two key components of culture and memory development on the urban landscape of the city.



Fig.4 Old Railway station-City museum, Skopje

*Small - station facility* is adapted from an administrative function to trade cultural center. Although located just a busy thoroughfare, and in the downtown core, its environment with other functional objects, allow it to dominate the immediate location, with higher attendance. From the old existing building is retained overall dimensions, while the interior is completely adapted to maintain

the contemporary cultural events (exhibitions, concerts, promotions, etc.) The cultural function object successfully fit into the group of urban facilities are integrated in the urban development of this central part of the metropolitan area. Favorable communication setup, easy access and spaciousness of the facility, are shown over the use of the facility to be very successful.

*Havzi-Pashaas lodgings* location outside the urban part of the city, the original residential function, is now adapted into a spatial cultural complex. Although outside the urban area, this facility affect the activities within the city's cultural offer, always with different adaptive purpose for certain events. Although the condition of the buildings of the complex is completely destroyed, by the construction of walls was preserved, retained the form and spirit of the place as a multifunctional space that has cultural significance.



Fig.5 Museum of Macedonian struggle, Skopje

*Museum of the Macedonian struggle* as part of the project *Skopje 2014*, is a new form of museum building, to meet cultural needs. As part of the grand project that has a political concept, he and his architectural and spatial form is synonymous with imposing buildings in the cultural life of the city. Besides the dominant position of one of the central points in the city, this museum makes a big impact, as new construction of modern approach of linking complex constructions of culture. He is the general arrangement of buildings blocks, with new projects for the old theater and the archaeological museum facility. This whole complex of new buildings represent a new way of urban imposition by a brand new image and urban access, without respecting the cultural matrix of memory and urban development. These objects are seen as synonymous with the



modern times and modern trends of urban development of the city, recognized for meeting the needs of the city. From an urban perspective they take at the central position in the city, with a dominant location, the place of connection of the previous spatial relationship of the old and new town, which is established through historical spatial framework.

### **Cultural environment-urban landscape - urbanecosystem**

Cultural environment can be up to certain qualities of urban community. It is necessary to create a quality urban environment, which includes adaptation to ecosystems. To some extent the city functions as a machine, which rejects vast amounts of waste and energy, and air pollution in cities. These factors as environmental consequences, not swing into account in the preparation of projects or urban services, have no concept of their impact on the environment. When developing plans usually pay attention to only one dimension, as transportation, installation, water supply, and not to other areas of ecology. Residents perceive their environment with microclimate created conditions where humans can vary significantly from regional characteristics. Urban ecology depends on changes in the elements of the intervention in the natural environment. Identified specific factors caused by regional climate changes in urban planning, protecting the surfaces of the facades of buildings to absorb solar radiation, wind utilization, application of color tonalities, ventilation facilities and other energy loss in industrial complexes, atmospheric pollution through evaporation, radiation, reducing wind speed and so on. The above factors serve to recharge if on a healthy urban cultural content with new content.

Vegetation has a significant effect, with ground cover and protection from solar radiation, thus reducing the effect of warming. Because urban landscapes have a significant role in providing a comfortable environment for users or temperature. The urban environment should be treated as an eco system where energy and materials are transformed into products such as thermal and chemical waste materials. In developed countries the use of the properties of the waste heat proved

economically viable. The research is important for traditional examples of urban settlement, as a result of their own culture. Facilities that are constructed or adapted to cultural purpose, it is necessary to have applied values of Systems concept of eco, energy saving, and other factors that affect the quality of the urban environment.

### **Sociological research**

Sociological spatial approach is visible in the historic cores and contemporary settlement, there is a reluctance to plan for moving from conventional planning, where architectural approach is not coordinated with social needs. Modern urban communities, high density, apply their own traditions based on functional and practical needs. Certain types of neighborhoods where the patterns are dense, physical transformations, intensifying trade activities where there are limited resources. This situation directly affects cultural needs, environmental protection, the settlement pattern with remote control as template for those who shape the new urban areas. The visual effects of construction of urban spatial environment is expressed through the spatial relations organization. Obvious examples are from different cultures, buildings that are not able to revive if the group does not share the same space and common ground. The community organized social spaces and buildings, spaces, roads, marked zones and the like. The appearance of the historic old city cores with different types of objects, through resource constraints placed on the use of cultural content, leading to some positive results. Several degrees of privacy space refers to the space where the entrance door marks the first degree, outside the door of the yard is the second level, while the public square is the third degree. Certainly the density of the pattern of living in urban centers and its greater density, becomes a model for future urbanization. Cultural areas as basic social spaces become spontaneously place for creative opportunities as a way of life, not as sterile space users. Over time people treat and provide custom stamp of your favorite urban spaces through institutional or commercial upgrade.

## **Changes in space**

When analyzing the social spaces where social mores and fit functional necessity, is largely expressed through urban movements, corridors, streets, walkways and open spaces. In terms of physical shape urban cultural movement scenario is composed of a hierarchical network of spatial corridors, as an integral part of urban spatial complex system in the neighborhood. Movement and provision of social significance and character of the corridors of movement, creates a system of hierarchical movement, in addition to urban residents. Under increasing intensity and volume, urban areas are characterized as private social spaces, open spaces between buildings, mainstreet, alley, square or building corner. Such varying degrees of privacy can be achieved through discrete planning.

The natural features are crucial for the urban environment, improve the quality of life as a good potential for recreation. The social success of open spaces depends on the management of the city with cultural forces at work, and achieving architectural responsibility and social conscience.

Cultural needs and bring change within the ethnic transformation of scenery, where different ethnic groups, acting under different social worlds. Multiculturalism as a set of social interactions and urban culture, has become a form of national identity and the meaning of citizenship. The multicultural city should accept multicultural cosmopolis, where there is a connection and respect the culture of the other. Multiethnic city creates inequalities continues to create many dimensions such interaction in the built environment. Within the cultural needs of the City of Skopje successfully handled within the multicultural environment where harmony and coexistence have an advantage, as supplemented in the field of cultural ethnic relations. The objects of historical value, adapted to the cultural needs of the city, creating a social environment that works on the concept of modern urbanism, creating a certain cultural spirit of the place.

## **Conclusion**

The concept of tradition in European culture was initially negative and was connected with the irrational, paganism and superstition, but after the industrial revolution, the tradition is interpreted in a different way. Tradition bringing new light to the identity of certain urban forms, but also a certain continuity in order to preserve tradition as a carrier of cultural continuity environmental or urban environment. Elements of traditional society present positive as part of idealized traditional society, with its own autonomous features. The model of traditional defined by opposition to dominant norms, through positive attributes, the institutionalization of discourses of tradition. Through the model developed traditional ideal society, the assumption of collective values as a collective agreement. The respect for tradition creates collective control, which acts as a discipline. The tradition in the society is organized as a traditional value that is transferred over time, transmitted from generation to generation. Traditional buildings have been removed from the social and spatial processes of urban development, and the process of urban development, are expressed in the traditional version of modernity and architectural history. The stress value of traditional buildings and dealing with them, when they disputed the process of rapid urbanization.

Traditional societies are constructed as a collective consciousness, which is realized by common beliefs of traditional canons of different architecture. Collective author redefine traditional landscape architect as where issues of identity are central. Traditional architecture and inter-relationship with the modern architecture becomes clear. So traditional settlement and facilities as urban core, is capable of transforming human consciousness, and to reaffirm the modernist assumption to the capacity of the architecture to initiate direct social change.

Institutions in the field of culture is necessary to integrate the mutual spatial system to join the common connecting shafts, the existing street and pedestrian networks. Forming the streets, or core of culture, composed of galleries, cultural facilities, adapted historic buildings. The

necessary adjustment of existing traffic flows and communications, and in situations where there is not enough space in the urban network system.

Public memory is designed to understand and depend on the design of memory that is generated by moments that are part of the lives of citizens who will never be completed. It is part of the collective memory, and the transformation of the monuments may lose visibility which is important for future generations.

Through the transformations that occur in meeting the cultural needs, adapting historic buildings or building new facilities, spatial context is undergoing changes in the form of a certain transformation of the urban landscape. Within the urban development of Skopje, based on the chronology of historical buildings, we can speak of a cultural landscape where basic components are history and memory. The use element of urban form as recognition by the silhouettes of historical buildings that participate in meeting the needs of the site. Downtown core area with a combined commercial and residential buildings, which can be distinguished political public spaces with administrative buildings, and cultural areas. Cultural areas containing historic buildings are adapted spaces of memory, which is incorporated parts of cultural history.

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## COMPUTER SUPPORT MANAGEMENT PRODUCTION

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**Abstract:** The modern age in which we live today, modern and highly advanced technology that follows us all, gives great importance in the management of production within the computer support of management. Computer applications in production, the organization of production systems, in the organization of management and business, is gaining in importance. We live in a time when more and more uses computer technology and thus gives the opportunity for a broad and important area of application of computer systems in production, as well as some methods that enable us to successful implementation of a computer, such as in the management of production. Computer technology speeds up the processing and transfer of Information By needed in decision-making at various levels of management. Computer applications in production management and organizational management business production system gets more and more .New generation of computers caused the first technological revolution in industry.On these solutions the industry has been able to use all the modern technology of computers in manufacturing, automation and production management.

**Keywords:** *product management, computer applications in manufacturing, computer management techniques of production.*

### Introduction

Computer support for the management of production in the present is of great importance to my sight production. Computer system or computer is a machine for processing characters and character names based on logical rules.

Development of producer organizations came to the point where the use of outdated conventional technical means of production, and strongly reinforced by the application of modern cybernetic provide comprehensive management of production.

Computer applications in production and management becomes increasingly important.

Modern industry and enterprise more efficient to conduct this work using computer technology, and specific methods that allow the successful use of computers.

This is a broad and important area of application of computer systems in production because in fact aim to maximally automate the process of implementation, management and production control. When designing a system of production which implies an integrated production system, one of the most important tasks is to collect and process large amounts of information. The use of computers for production monitoring is based, finally, the structural application of various computer by levels of production control decision-making.

The concept of small computers based on the new developments in the field of semiconductors, with which to construct complex logic device that is also suitable for programming and have a strong memory. In modern production use of computers in design is considered mandatory because it requires a modern production concept that the organization of work is based on the necessary computer support.

Information system is the production of form process and the process of production management, in which du displayed information flows and the movement of the holder of information - documents.

Today, in practice, there are solutions to be used by Computer-oriented applications in production management. These include the following problems: remote control, data transmission distance, ie. connect the terminal to the main computer, the introduction of mini computers in the system in order to establish connection between the terminals, without prior connection to a computer terminal.

All computer systems, regardless of which category they belong to, consist of a central unit and one or more devices that provide data for entry or exit from the central unit.

### **1. Application of computers in the management of production**

Development of the productive organization of production management has come to the point where the use of outdated conventional technical means of production, and strongly reinforced by the application of modern cyber asset management. These funds to the development of the company is extremely. Many companies their conventional work organization move on a new organizational level supported computer technology. New concept of using computers in the production and operation consists in the introduction of automation of the entire sphere of operations and the integration of production systems. Because as the production of more integrated and automated system by function, it is more efficient and economically. Application of computer in production management and organizational management business production system gets more and more. New generation of computers caused the first technological revolution in industry. On these solutions the industry has been able to use all the modern technology of computers in manufacturing, automation and management. That computers become assets, which is under the management strongly supports increased productivity, both in product design and in the immediate. Computers technique speeds up the processing and transfer of Information By needed in decision-making at various levels. Important is the way to go is the construction system. Application of computer first and second generation was confined to the machinery records and statistics, and accounting for the expansion of technical. Third of generation has expanded the application of computer to a much wider area.

Particular area, where a new generation of computer found application, is managing the production, and operations. Initially, the use of computers in management would be reduced to solving individual management tasks, which were inefficient.

Computers in American companies since ancient sixties takes the form of integrated data processing. This form of computer applications was characteristic of the function of production management. For this purpose, the computer memory is created documentation for all major manufacturing information. All production documents are sent to the computer. Based on these data, monitors the work of manufacturing plants and determine the order of realization of the tasks of production.

From the point of decision, this level of control is defined as a management information system operational management. Application management system UIS offers great opportunities to make decisions about production and operations management of a system. Each day the system UIS receives improvement which extends the possibility of its action. Improved use of mathematical models, this system is made more resilient. Based on this improvement, the system has enabled easier and faster information processing as Manager production in all conditions used. Further improvements of the system are focused on the ability to make decisions. Experts predict that in these circumstances the two thirds of the computers used for decision making of strategic importance for the company. In order to effectively use production control systems it is necessary to create conditions for direct contact with computers in real time. Modification of the question, we can get a response to various variants of setting the same task. This will allow managers to analyze the possibility of partial decision on the solution set problem in general.

#### **1.1. The application of computers in business and production systems**

IT in business and production systems include IS developed that monitors operation and provides the necessary information for decision making at all levels of management. The main resource for development in the industrial era was the capital of, and the information economy is the only resource for development of information and knowledge. Today the information through science, innovation, technology transfer, "know-how" and "show-how" very important component of

economic development. Using IT significantly reduces production costs, increases competitiveness and profitability of the business system. In addition to the computerization of the production process is increasingly the information itself is used as a commodity. Of all the IS, which are used in all spheres of society, the most important IS used for production management in business systems. Previous experience of application and introduction of computers in business and production processes are as follows: application of IS is one of the most important contributions to modern business development and production companies; in the design of integrated IS necessary to integrate technologically and functionally different elements such as tools, machines, systems for transport and storage, computer systems, and others. , which were obtained from different manufacturers; There is no significant difference in the level of the achieved level of use of computers within the individual subsystems; In most companies the hardware configuration is obsolete; period of introduction of computers in the work is too long and with a very modest initial results. Implementation process and the introduction of IS requires a complete reorientation of the company; requires greater integration of the quality system ISO 9000: 2000 and IS in our companies; IS must be seen as a tool, not a goal; efficient use of IS in practice can only be achieved with good will, but it is necessary to invest large resources; it often happens that the computer unprofessional purchased and used inappropriately; One of the biggest misconceptions when purchasing a computer is that it underestimates the enormous importance of the previous analysis and the corresponding design of the system; the main reason many bad experiences in the introduction of IS in business and its further work, neglect of planning and development management IS; insufficient professional qualifications of the staff from the viewpoint of knowledge IS and feasibility of a computer; expedient selection and processing of information according to users' needs is one of the basic conditions for the successful operation of IS. There are at least four ways to assess whether we have a better or worse information: price, easy and difficult accessibility, diversity of sources and user-friendliness.

## **1.2. Production management general purpose computers**

Production management exists when people produce material goods and services. Although the emergence of production can be traced from the period of ancient civilizations, it will be considered the last 200 years by major contributions and tendencies of individual area. In this period, it is important to allocate 7 major contributions in the field of production management. These are: division of labor, standardization of parts, industrial revolution, the scientific study of labor, improving interpersonal relationships, and computer applications.

The application of general-purpose computers for production management requires formaton a computer centre. In these circumstances the overall organization of labor in production capabilities adapted to the work of the centre. Principle of functioning production system basically consists in determining the flow of materials and informacion. On the information provided management process. for these purposes, an important role is played by the file in which to gather information, stored and used by use. For establishment of information systems for production management requires a high level of organization records and information of the flow in the working conditions of the production system.

## **1.3. Application of computers in the management processes of the organization**

Application of computers in the management processes of the organization of management is widely used, which is applied within the organizational business-generating system.

Basically every technological processes are processes of exchange: energy, materials and information. At the time of the industrial revolution engineered devices that enable and facilitate the transfer and exchange of energy and materials. The third form of exchange of information -Currency came into the spotlight nearly a century later, thanks to the development of computers. With field of view in which the computer is still applied, the fact

that on constructed as a system for quickly solving complex equations represent paradox. Noticing that the number of those who have the need for complex calculation of proportion to small computer industry is looking for a market, examining all forms human activity trying to spot one in which the use of computers brought . As a result of these efforts, the computer still meets the most diverse working from household appliances to sophisticated systems such as air traffic control or production and distribution electricity. The design of the computer was such a daylight core strength lies in the ability to remember a large number of data and doing great number of elementary operations in a very short time. Accordingly computer start be seen as a device that can accept various types of information and DAIH in a very short time transformed into another, more convenient or usable form. Its application naturally spread to the field of information processing. Information sistem tracking material and financial operations, the state of the storage, monitoring nadradom plants and similar activities are included in the mass use in the late sixties of the last century, penetrating computers and systems whose main function is finally informacion but whose work request processing of, certain information, and the in accordance with thus their performance can significantly improve the efficient and timely processing information. If, in fact, accept the claim that control means choose between different options, then the information as necessary conditions for conducting a valid selection appears as an essential element in the management processes at all levels. Administration in company are necessary for business planning, management at the facility for production and evaluation of performance, the operators of the individual processes for fulfilling a given plan of production. Finally, a device to process the necessary information, in the form of signals coming from the measuring instruments to determine appropriate management strategies that these devices generate. Given this crucial role that information plays in the management (whether it is a device, process, installation, operation or the company) is a computer system that has the ability to accept, analyze and transmit large amounts of information at high speed, accuracy and flexibility, appears as a natural choice for

asset management processes. In essence, therefore, the process leading to the achievement of a goal, which is very important for a product management. However, regardless of the type of each process, the fact is that it never is completely isolated from its surroundings, that it is influenced by a whole range of different ways. This means that no prices, by itself, does not fully meet the set requirements. Moreover, the nature jeljudi to seek more and more, which, when it comes to industrial process, reduces the requirement to increase productivity, reduce energy consumption, increase the quality and so on. These requirements can be met if, in some way, external effect, controls the execution process. Management one process can be understood as a choice of one of the possible ways of functioning of the process. Ever since ancient times, with first processes whose effects man wanted to use, there is a need for control. Thus, for example, in the stone age man who kept the fire had to decide what amount of wood that size and level of humidity will be put into the fire to get a proper flame for cooking, heating, or send smoke signals. The ability of man - the operator of the process - while the work observed the effects of individual decisions on process and on relevant parameters. Design and installation of measuring equipment in the process enabled the operators to more easily make decisions about the choice of management actions what do more, some the managerial procedures have become standards. However, the final decision and executing a control action is still dependent on the man.

Over time it became clear that the quality of the entire range of products depends on whether you are in the process of their production maintained a constant temperature, pressure, level, flow, and the like. In addition, when once set a value corresponding physical size, task Operta was reduced to constant checking of these values and taking still similar actions which would be of this magnitude held on the given values. This fact has led to the invention of the regulator - a device that compares the value of a quantity of the process with a given basis of the experience gained so decides led to the improvement of management skills. It can be said that the management at that time was individual art that was based on the

ability of the operator to identify the conditions under which the process works and to intuitively choose the appropriate control action. Experience what the cavemen kept the fire continued and developed, each in their own way, and a blacksmith who is realized by adjusting the temperature of the lowest heat of iron and housewives who makes fire in the stove maintain a temperature that corresponded to a given type of food or cake. With development of human companies manufacturing processes are becoming more complex, and with it grew the number of possible approaches to their management. At the same time, it grew and the ability of consumers to a more precise specification of requirements in terms of quality of the final product. Subjective assessment of the conditions under which a process takes place in the wards precise measurements all values and on the basis that generates the control action which that value is maintained at a given (reference) level.

At the same time it can change the specifications of the product (formulation, dimensions, etc.). Bearing in mind that the preparation time is actually unproductive time it is certain that one of the tasks of management to reduce the time. Continuous processes - processes in which production is maintained over a long period of time (months or years). A typical example of this process is the process of refining oil in which to obtain various derivatives. During production it is possible to change the relationship of individual products, but this is achieved without stopping the process. The task of the control system is to maintain the conditions under which the process in order to give the desired product quality.

Installing the controller business operator is greatly simplified, but the choice of a proper reference values of still depends on his experience and subjective evaluation of the changes that are necessary for a better work process. With development and improvement of measuring equipment appeared gradually new problem. The operator of a sudden he nearly "buried" a wealth of information that could be processed in a timely manner. To assist the operator in both the organization and in the

processing of information collected formed a special centralized command centers that are equipped with graphic panels, control lights and a range of other devices for displaying information. However, studies have shown that the operator is limited to the observation of a subset of this information and that all decisions are made solely by reference values within that subset. Moreover, in selecting a subset of the operator enters a certain degree of their own individuality. It's common that the new shift comes to complete changes to a subset that is observed, and the reference values and sizes that are effectively managed. What is surprising is the fact that this process operator management changes do not reflect on the quality of the final product. All the operators to explain the commission choices listed their experience or simply intuition that it should not do so. Hence, it was difficult to process for this type of setting reference values automated. System automatic control. Seen entirely general in every process there is an input into the process (information, materials, signal) that changes within it and leaves it in an altered form. The purpose of the process is, therefore, realization of proper management of change. It has already been pointed out that no process is not working as we would like it to be, and there is always something that could be altered to increase its efficiency, reduce costs and execution time, etc.. In order to achieve the desired result is projected control system whose task is to change the input process to improve its performance. Accordingly any automated system management has two parts-procedure management.

From the standpoint of management, and the final product, the process can be viewed as mapping a set of external stimuli (inputs of the process - regardless variables) affecting the operation that is in the process of progressively takes on the set of values that reflect the conditions under which the process works and what effects are thereby achieved (out of the process - depending on variables). The influence of an input to the process is measured by the change output. In principle outputs of the process are determined by the measuring equipment that is built into the process. The choice of this equipment are the designer of the process, and depends on a number of factors,



ranging from the price of the measuring equipment, and the effects that they want to measure. It is certain only that the choice of output must be such that on the basis of measured values can get a complete picture of all aspects of the process that are of importance for the final objective. Inputs process also defines the design. In doing so, selecting a range of sizes whose choice can directly affect the behavior of the process (controllable inputs). For this selected inputs are installed appropriate minimum executive by which achieves change inputs. However, despite these sizes there are external factors that operator can not influence (atmospheric conditions, vibration, etc..), Which causes certain changes in the behavior of the process. These inputs are called disorders.

## **2. Modern industrial production management**

In recent decades, there is a significant change in industrial production management, which initiated the modern trends of production, as well as organizational and business-generating systems within the framework of management and business. These changes occur if the modern, stringent requirements in terms of production and operations that are placed before manufacturing companies as carriers of economic and overall development društvenog. These challenges are as follows:

Speed and competitive spirit of the business are included in every business the present time, so that the company can survive only if it is a competitive in quality, price and speed of delivery of its products. Great development of computer systems and information technology enables the application of new scientific and technological achievements in technology. In addition to computerization and introduction inovatizacija in production and operations becomes imperative modern organization.

Staff education becomes one of the primary tasks of modern company. All more is necessary knowledge to work on your computer, methods of production and management. The stated reasons have influenced the development of new approaches

to the management method modern industrial production.

Some of these approaches are:

1. MRP system
2. MRP II system
3. MRP II system
4. Optimized Production Technology-OPT
5. Group technology
6. Automation
7. Industrial Dynamics
8. Toyota Production System
9. Just-in-time production-JIT
10. Kanban system
11. Total quality control

The first seven approaches are more oriented to the production process and have quality character. In them as a primary character appears to increase productivity while reducing costs of production, the main carriers of these transformations are engineers.

### **MRP I system**

MRP stands for Material Planning Requiremen which means planning needs into the material. Therefore, MRP I system is focused on planning activities material on the basis of specified planning tasks. The types and quantities of certain of the final products within the manufacturing system. In this way, they are managing material flows and determine what, how much and when to order and deliver.

### **MRP II system**

MRP II system was developed in 1966. In this case MRP stands for Material Planning Requiremen which means planning the needs of the resource. Thus, the MRP II system was extended to the planning of all resources of the enterprise, as msto planning: capacity, delivery, human resources, flows laundering and the financing of the general. MRP II systems are developed, whose functions include not only production but also finance and marketing companies. By including finance the MRP II system, an insight into the financial transactions, production costs, and enabled the

current Product ID of where we strive lose on production. Linking marketing in MRP II system created the conditions for accurate planning of orders and delivery of finished products as well as access to open orders.

### **2.1. Industrial dynamics of modern production management**

Industrial dynamics of modern production management makes a significant contribution to solving the problem of connecting all flows in a production system. This is achieved mathematical interpretation of the interconnections and simulation of business operations of modern production. Although it contains some flaws, industrial dynamics represents an important factor for successful decision making.

The concept of industrial dynamics allows to improve the existing system without the use of the search of the optimal system.

Methodology, industrial dynamics is reflected by the following stages:

1. Defining the problem, which in addition to setting the problem, including the identification of the target. This shows the connection of the system structure.
2. Giving verbal description of the process and models of system behavior. This must take into account the interaction of influential factors in numerical and descriptive form.
3. Mathematical formulation of the problem. It is based on a verbal description of the process. It is very important to achieve a high degree of harmonization among the mathematical formulation of the problem and a verbal description of the process, which still represents an abstraction process. It is very important to achieve a high level of mutual coherence of the mathematical formulation of the problem and a verbal description which still represents an abstraction process.

Changes in any process, represent states between which the centers of decision-making.

These centers have the task of taking appropriate action in accordance with observed deviations.

### **2.2. The application of communication systems in production management**

Production control by using the communication system has practical application in the management of specific product subsystems: subsystem in inventory, machinery and tools, maintenance, warehouse, etc..

Here is a remote control, which uses appropriate cyber assets, such as remote teleprinters, computers for inventory management, control units, etc..

For example, a communication system for the machine has the following structure of data and information systems.

For all machines there is a common way to control the visual indicators in four colors have their meanings:

1. Green - the machine works
2. White - working on a blank
3. Redwood - machines stalled
4. Yellow - intervention is necessary.

Job in manufacturing has three phone lines:

1. For the visual control panel
2. To maintain and distribute
3. In connection with other machines

Based on these data, it is evident the importance of communication systems in production management. Similar structure and informational relationship with many other systems.

### **Conclusion**

Changes in the organization of production go rapidly in several areas. E.g.. Changes in quality control are such that the process has completely changed the meaning, because in the modern industry came to be that quality control goes over to examine the accuracy and quality of the product, but it goes to the planning and design that advance ensures

accuracy and quality, therefore no scrap and defects, whose trial is very expensive.

For a good quality product on the market is responsible the entire company, not just a workshop.

Scientific advances in production have become a tool of experts for sustainable development of production and technology in modern industry.

Computer support for the management of production and modern forms of industrial production are modern forms of today's computer system and from the management of production.

When computer-controlled process control system is switched to improved microprocessor. This allows greater flexibility of the process, but the capacity of memory data, and the receipt and delivery of data is done electronically.

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## ELECTRONIC BANKING AND ELECTRONIC COMMERCE IN SERBIA

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**Abstract:** Nowadays, we may witness to dramatic and visible changes in our life environment. Business ambient for companies is different every day, and it is very hard to predict a direction of future changes. There is an environment characterized by sharp competition and increasing number of competitors, fast technological improvements and highly sophisticated and informed costumers. Technological process influences the humanity strongly, changing the way that people live, work and spend. Electronic commerce and electronic banking has become incontinent, and makes a great part of today's total transactions. There are an increasing number of companies that perform their business that way and make profit. Social networks are proven to be the least expensive way of information exchange, and they are present in almost every part of the world. The globalization has reached the most distant parts of the Earth. Every resistance to new technologies is dangerous and may lead to bankruptcy.

Due to the EU expansion, Internet users are to be expected, and prosperity of the e-commerce business models at the same time. In Serbia, electronic commerce is present, but not as developed as in EU countries. E-commerce, however it might be successful throughout the world, it is somewhat slow in its growth in Serbia. The reasons are numerous, and main obstacles are the lack of trust, still limited usage of banking cards, avoiding of e-payments by older population etc. Also, the recent scandals over the misuse of personal data, and e-crime are discouraging factors for the growth of e-trade and e-banking. The younger generations are ever more ready to use e-commerce, since they are open to new technologies and do not have the defensive attitude towards it. E-commerce and e-banking has growing potential even among older population, if the society prevents them from fear and mistrust.

**Key words:** e-commerce, safety of e-commerce, new technologies, e-banking

### INTRODUCTION

Electronic business, or shortened, e-business, is the application of already acquire information and communication technologies (ICT) which serve as a support of all the possible activities in business. In its original meaning, commerce is a set of all the activities and material that encompasses constitutes the exchange of products and services between businesses, groups and individuals. It is one of the essential activities in every aspect of the business.

The electronic commerce, or e-commerce, is the branch or a subset of the e-business that focuses on the utilization of the information technologies in order to enable the external activities and relationships between the businesses and individuals (it is now equally valid in terms of B2B or C2C commerce or trade). It is however interesting that the term "e-business" was coined by IBM's marketing and Internet teams in 1996.<sup>1</sup>

The idea of electronic commerce is to enable companies to link their internal and external data processing systems more efficiently and flexibly, and to satisfy in a better way their customers and their expectations. Since the Internet is fairly liberal and common network, the question of security has become the main question of all the dialogues about the future of e-commerce, and especially when it is the case of the electronic banking. Firms tend to use more private and hence more secure networks for more effective and efficient management of their internal functions.

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<sup>1</sup> Gerstner, L. (2002). *Who says Elephants Can't Dance? Inside IBM's Historic Turnaround*. p. 172

## 1. E-COMMERCE

It is crucial to say that there is a big difference between the e-business and e-commerce, and then again between the e-trade and e-banking. It is very important to say that there is e-business, which focuses more on strategic functions using electronic tools; e-commerce is merely a subset of an overall e-business strategy.

E-commerce therefore seeks to add the necessary revenue using the Internet, and often it includes the application of knowledge management systems.

In its core, electronic commerce (EC) is therefore a process of buying, transferring, or exchanging products, services, and/or information via computer networks, including the internet. EC can also be beneficial from many perspectives including business process, service, learning, collaborative, community. EC is often confused with e-business but as we have proved, e-business is much wider a definition than the e-commerce.

If we observe information flow in electronic commerce, we may see that individual users may electronically order products and services from on-line retailers that use different information and communication technologies in their business.

The situation in the world is rapidly changing and what was simply impossible a year ago, now it is absolutely normal. People, among them the writer of this paper, sometimes wonder how was it possible to live just a few years ago without smart phones or laptops, without the e-commerce, without online shopping, online low-cost tickets or so? Just twenty years ago, in 1994 when we all thought we were very modern in the times of dot.com revolution, hardly anyone would be so optimistic about human society development, i.e. development and changes have happened in all areas of our lives.

But then when the first desktop computers applied multitasking and entered our homes, and we became aware that the computers, that replaced the typewriters, will soon be

replacement for almost everything, from banking to telephone, from photo albums to music players. Of course, it is all caused by the abrupt and constant (although it sound contradictory in a way) and very prominent changes are in information technology sector.

Furthermore, because of these changes the result is the rapid shortening of the life cycle of the products. This tends to be a continuous process and it is expected to accelerate in the future.

Companies therefore simply have to adjust to these new circumstances, to a new environment and to change together with it. There are more flexible enterprises that would be adjusted with ease, while others cannot to the adjustment easily or cannot adjust at all. The ones that adjust easily can count on the market share, while the ones that cannot adjust or adjust slowly can literally disappear from the market.

It is interesting that there is an ongoing debate especially in the United States of America, which implies that “the clicks ruined the bricks”, since we are witnesses to the fact that ever increasing number of retail stores are being closed in the United States of America, and the e-shops are increasingly taking over.

And really, even we in Serbia are more acquainted with the online shopping of air flight tickets and the booking of the hotels, the situation in the world grows rapidly in favour of the e-commerce. Why should simple, everyday customer take up their valuable time sitting in traffic to get to the malls and to shop, when they could simply be doing it from the comfort of their own homes, or during lunch breaks on their own smart phones and tablet devices?

An entire website has now been devoted to “Dead Malls”<sup>2</sup>, the ones which started out losing major anchor department stores and then primary retail spaces until even the secondary stores could not survive on their own. Recent figures indicate that retail

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<sup>2</sup> <http://deadmalls.com/>

space in over 200 shopping malls across the United States are suffering 35 percent vacancy rates or higher. Not surprisingly, the largest retailers in the country are also the ones with the largest amount of mall exposure as well, and are seeing their sales decline significantly as a result of this overall slowdown in mall shopping.<sup>3</sup>

Mobile technology is also having a huge impact on brick and mortar retail, and the front line where much of this is happening is at the mall. Amazon recently reported that roughly eight percent of their total sales are being generated by mobile devices.<sup>4</sup>

Also, there is a new and powerful tool, as we could see from the recent “Arab Spring” events etc. These are social networks. Social networks are proven to be the least expensive way of information exchange, and they are present in almost every part of the world. The globalization has reached the most distant parts of the Earth. Every resistance to new technologies is dangerous and may lead to bankruptcy. So, every company has to think twice before they decide to miss the opportunity to invest into a new technology, ICT and progress in this field.

Besides, there is a huge m-Commerce, and the new t-Commerce channels are being born. These channels are often referred to as the future for the e-trade and e-commerce (Hacon, 2013).

## **2. E-BANKING AND ITS SAFETY**

Electronic banking (e-banking) is a form of banking business which is based on intensive use of computer networks, Web technologies, Internet and telecommunications. Its implementation implicates appropriate hardware and software platform, precisely defined network components, specific organisational structure, standardisation, etc. Today, concept of e-banking in Serbia is generally associated with electronic

transactions between bank and its clients, or, realization of electronic system of payment which (depending of categorisation of clients) could be e-banking for civilians (retail banking) or e-banking for business (sometimes called corporate banking). Current law regulations and related solutions are disabling faster development of electronic services and represent stagnation for its further development, because some areas (which would provide faster and more dynamic electronic services development) of e-business domain are not regulated. E-banking can be seen as ways of performing financial transactions using information and telecommunication technologies (Kondabagil 2007).

But as we have proven, there is ongoing debate about the security of such business. The safety is the object of attention of all countries, having in mind that all the users of the Internet tend to be safe and they would like to have reliable models of Internet safety, the good encryption and to have confidence before they start any online transaction, since in the e-banking as in any other banking there is a key problem of security and confidence. In the classical banking the customers and clients give their money to the banks they trust most, so why should it be any different in e-banking? It is just that we have no safes and physical barriers that prevent the thieves and criminals from seizing money, but the good algorithms and good encryption processes. The protection of the companies involved in information and data exchange and paying by electronic devices must be therefore very hard and strong.

It must be said that the electronic infrastructure is a subject to various attacks, which cause business stallmate and also can imply the financial losses. Therefore every company should apply the adequate safety politics.

Encryption, which is actually a part of cryptography, involves transforming texts or messages into a code which is unreadable. These messages have to be decrypted in order to be understandable or usable for someone.

<sup>3</sup> [www.zdnet.com/e-commerce-will-make-the-shopping-mall-a-retail-wasteland-7000009960/](http://www.zdnet.com/e-commerce-will-make-the-shopping-mall-a-retail-wasteland-7000009960/)

<sup>4</sup> [www.zdnet.com/e-commerce-will-make-the-shopping-mall-a-retail-wasteland-7000009960](http://www.zdnet.com/e-commerce-will-make-the-shopping-mall-a-retail-wasteland-7000009960)

There is a key that identifies the data to a certain person or company. With public key encryption, there are actually two keys used. One is public and one is private. The public one is used for encryption, and the private for decryption. The level of the actual encryption can be adjusted and should be based on the information. The key can be just a simple slide of letters or a completely random mix-up of letters. This is relatively easy to implement because there is software that a company can purchase. A company needs to be sure that their keys are registered with a certificate authority.<sup>5</sup>

Since there is a new area of doing business, there is a new type of criminal that arose from the criminal milieu, and these are usually not the criminals from the streets, but the white collar criminals, hackers, sometimes joint by the old-fashioned criminals who make the plot. Thus it is impossible to speak of new technology implementation in e-commerce if all business conditions are not defined.

It is fair to say that the new type of business sparked the invention of new rules, and the new infrastructure, and these things certainly require specific new investments, which could be significant. These may include tracking of users of the online transactions as well as the suspicious behavior of other members of the Internet community. If a client suspects they are being tracked while doing their business or performing a transaction, they should immediately stop doing it, log off and report the bank about the fraud trial.

More than 75 percent of the bank Web sites surveyed in a University of Michigan study had at least one design flaw that could make customers vulnerable to cyber thieves after their money or even their identity. These design flaws aren't bugs that can be fixed with a patch. They stem from the flow and the layout of these Web sites, according to the study. The flaws include placing log-in boxes and contact information on insecure

web pages as well as failing to keep users on the site they initially visited.<sup>6</sup>

Attacks on online banking used today are based on deceiving the user to steal login data and valid TANs. Two well known examples for those attacks are phishing and pharming.

Cross-site scripting and keylogger/Trojan horses can also be used to steal login information. A method to attack signature based online banking methods is to manipulate the used software in a way, that correct transactions are shown on the screen and faked transactions are signed in the background.

There is a famous incident in this area, which is known as the 2008 U.S. Federal Deposit Insurance Corporation Technology Incident Report, compiled from suspicious activity reports banks file quarterly, lists 536 cases of computer intrusion, with an average loss per incident of \$30,000. That adds up to a nearly \$16-million loss in the second quarter of 2007. Computer intrusions increased by 150 percent between the first quarter of 2007 and the second. In 80 percent of the cases, the source of the intrusion is unknown but it occurred during online banking, the report states.<sup>7</sup>

Another kind of attack is the so-called Man in the Browser attack, where a Trojan horse permits a remote attacker to modify the destination account number and also the amount.

The real life showed that no level of protection on the Internet could ever be enough or sufficient. Each type of protection can be eventually surpassed or decrypted. Therefore there is an ongoing race between the protectors of e-commerce and the attackers. Therefore, when we treat commercial data, it is obligatory "erase the tracks". It would mean the protection of information in a period of few days, or even months or years. It should be necessary because of the time actualisation of data. It prevents criminals from having the "comfortable position" and to have enough time to plot a robbery or a data misuse.

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<sup>5</sup> Westfall, Joseph. Privacy: Electronic Information and the Individual." Santa Clara University. Markkula Center for Applied Ethics, 2010.

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<sup>6</sup> <http://newswise.com/articles/view/542848>

<sup>7</sup> <http://newswise.com/articles/view/542848>

### 3. E-COMMERCE AND E-BANKING IN SERBIA

As this new strategy for doing business is being implemented throughout the world, it was just a question of time when it will come to Serbia in its full scope. Serbia became a country with a strong e-commerce activity, and the market grows literally every day. One of them is e-banking which is a subset of banking as well as a subset of e-commerce, so both areas of economy deal with that area of work.

Speaking of the electronic commerce in Serbia, we can say with regret that it is at rather a low level. It is thus necessary to take actions to fully implement this way business. Also, there is a rising fear and dissatisfaction with the safety of the Internet transactions in Serbia, which is far from satisfying. There are some frauds and they include false information which can include products or services.

Due to the EU expansion, Internet users are to be expected, and prosperity of the e-commerce business models at the same time. In Serbia, electronic commerce is present, but not as developed as in EU countries. There are more and more web sites of companies. A lot of them are ready for B2C exchange while many manufacturers and retailers use B2B model which is more requiring but brings greater benefits.

E-commerce, however it might be successful throughout the world, it is somewhat slow in its growth in Serbia. The reasons are numerous, and main obstacles are the lack of trust, still limited usage of banking cards, avoiding of e-payments by older population etc. Also, the recent scandals over the misuse of personal data, and e-crime are discouraging factors for the growth of e-trade and e-banking.

The positive factor in all the predictions are that the younger generations are ever more ready to use e-commerce, since they are open to new technologies and do not have the defensive attitude towards it. E-commerce and

e-banking has growing potential even among older population, if the society prevents them from fear and mistrust. The younger members of the society seem much readier to use e-commerce, worldwide and in Serbia, in ever increasing numbers.

When assessing the state of e-banking in Serbia, it is important to compare the situation in this field with developed countries, on the one hand and the situation in other areas in the country, on the other side. In economically developed countries, percentage of e-banking in payment system is very high (e.g. in France, 70 and 80 %), while Serbia is much lower (about 1/3).<sup>8</sup> The following figures show the users of Komercijalna banka AD Beograd (Commercial Bank AD) used e-banking from 2005 to 2009 and this trend was rapidly increased in the next five years.

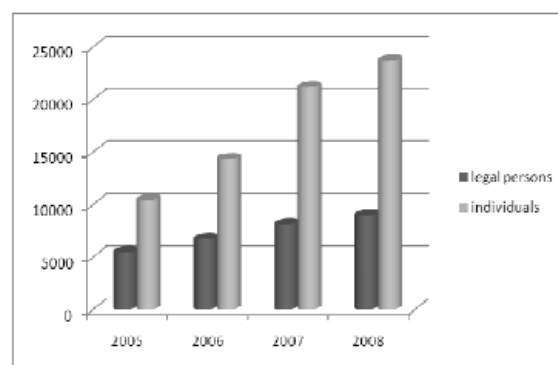


Figure 1: Total number of users of e-Banking Commercial Bank ad Belgrade (Commercial Bank, 2009)

### CONCLUSION

Thinking about the e-commerce and e-banking in Serbia, it is an encouraging fact that the younger generations are increasingly ready to buy online. As they get into a possession of funds, they will be a new wheel of e-banking, e-trade and e-commerce, since the use of ICT is in their veins and they are “Internet natives” and not “internet immigrants”.

<sup>8</sup> Radojevic, Radovanovic (2010) *E-banking Implementation in Serbia*, 6th international Scientific Conference, Vilnius, 2010



However, in Serbia it is however only in the initial phase, and the blooming of the e-trade is certainly expected in the future. But even if we notice that the e-trade is in a rise, it has not achieved such success that had been predicted previously.

Currently, in Serbia, e-banking use a small number of clients and now it is not possible to predict the pace of the implementation growth, which imposes the need for investing significant funds in bank development, marketing and education clients.<sup>9</sup> Reducing rates of electronic transactions will for sure accelerate use of e-banking in Serbia in the future years, since apart from being fast, the clients want e-banking to be cheap.

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<sup>9</sup> Radojevic, Radovanovic (2010) *E-banking Implementation in Serbia, 6th international Scientific Conference*, Vilnius, 2010

## KNOWLEDGE MANAGEMENT AND HUMAN RESOURCE MANAGEMENT. A STRATEGIC PERSPECTIVE

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**Abstract:** The paper considers important issue of knowledge management and human resource management together from a strategic perspective. Theories of strategic management acknowledge the importance of internal activities, capabilities as a potential for competitive advantage. Drawing on the theoretical insights of the resource-based view paper shows both how HR systems may contribute to sustained competitive advantage by facilitating the development and utilization of organizational competencies and how HR systems may be the source of competitive vulnerability by contributing to the destruction of organizational competencies and/or preventing the utilization of those competencies. If the organization wishes to achieve competitive advantage on the basis of knowledge, a corresponding approach is needed when it comes to knowledge management. The process of knowledge and information dissemination must be carefully designed, encouraged, carried out, and supervised accordingly.

### Introduction

In the case of strategic management the vision is general, over the whole of the company, instead of only looking inside the company, it also looks outwards at its surroundings.

Strategic management requires a vision of all the areas, because although on occasion it might seem to focus on one functional area, it always needs to bear in mind the other areas. For example, if we have to decide what sort of product to make in the future, this decision is undeniably in the area of operations. However, marketing has to tell us whether the product has a sufficient number of potential customers; whether it is really going to satisfy a market need. And R&D may have to develop the product. And human resources (HR) must always provide the necessary personnel to make it. And finance must ensure that the company will be able to fund the whole process and make a profit from it. Strategic management has an

overview of the entire company because all its areas are strategically interrelated, as this book will demonstrate and highlight.

Strategic management is also extrovert because it looks outwards at the environment as well as inwards at the company. Strategic management is no more than the process of constant adaptation of the company to its environment, in order always to be better than its competitors in some vital aspect that is valued by its customers.

Just as each business within a group of enterprises must think out and decide on its strategy, each functional area (marketing, operations, finance, etc.) within a business must think and decide about its own strategies. The perspective of a functional area is totally different from the corporate or the business perspective. The corporate level, as we have seen, thinks and decides about businesses. The business level analyzes and decides about how to obtain a competitive advantage in a particular industry, about how to satisfy its customers better than the competition. The functional level has a much more specific vision, in much sharper focus. For example, the area of marketing focuses mainly on the market, getting to know the company's customers, getting acquainted with their different needs, and properly communicating the messages and positioning that the company decides on and wants to convey. In turn, the area of finance concentrates on economic and financial aspects, liquid assets, ratios and so on. And the area of human resources deals with people. Again we see how different levels of strategy provide different visions and consequently different types of strategic decisions. They are strategic decisions because the future of the company depends on them too. No matter how good its business strategy, no company can survive

unless its marketing, human resources and finance strategies are effective, among other things because the business strategy takes shape through these functional strategies.

Logically, the various functional strategies must work in the same direction as the business strategy, and therefore they must all be consistent with one another. Otherwise we might find that the sum of several very good strategies at a functional level is a resounding failure for the company as a whole. For example, a business strategy that is committed to cutting costs and standardizing the product in operations is incompatible with a marketing strategy that pursues elitist differentiation, no matter how well designed it is.

### **1. Business Strategy and HR strategy**

Theories of strategic management acknowledge the importance of internal activities, capabilities as a potential for competitive advantage. Porter work (1985) on competitive advantage acknowledged the need to effectively link an integrated configuration of internal value chain activities to intended business strategy. Subsequent work view (Barney, 1991; Grant, 1991) on strategic management focused on resource-based and knowledge-based view of the firm arguing that internal resources are essential to build and sustain competitive advantage. In resource-based view of strategy, developed by such authors as (Wernerfelt, 1984, 1995; Quinn, 1992; Grant, 1991; Hamel and Prahalad, 1990) the company is seen above all as an entity comprising core competences.

This approach holds that the key lies in resources, since the turbulence of the environment, its constant change, makes the firm's competences a much more stable basis on which to define strategy than that provided by the market. From this strategic perspective, the definition of the firm in terms of what it is capable of achieving, using its resources, can offer a much sturdier foundation for defining strategy than one based on the changing needs of the market.

Therefore, this strategic view goes beyond using capabilities as a filter in the strategic process, enabling the firm to weigh up its

feasibility, clarifying whether the firm will be capable of carrying out the strategy on the basis of the capabilities it can muster. This strategic view goes further inasmuch as it builds the strategy from the starting point of its capabilities, it bases the strategy on them, it seeks differentiation through them. The company works from the basis of the capabilities it masters better than the other companies in the industry.

It is important to be aware of the differences between resources and capabilities, and also to note the existence of two very distinct types of resources. It could be said that resources are the source, the components, raw materials of capabilities. Conversely, capabilities can be seen as the outcome of the cooperation and coordination of resources, the result of how the firm uses and organizes its resources.

An organization possesses tangible resources, assets such as facilities or premises, vehicles, machinery, staff and funding. And it also has intangible, immaterial resources such as its reputation, brands, knowledge and information.

A company may have ample resources such as those described, yet may be unable to use them to develop correspondingly high capabilities. There is little sense in possessing great technologies, facilities, a highly renowned brand or a large sum of money if they cannot be used effectively. The opposite may also happen: a company without much in the way of resources, for example with less technology, facilities, brand and capital, may achieve substantial capabilities. Cooperation among the people in the organization and coordination among its resources maximize them. The most important resources, those that nourish the core competences, those that lead to the achievement of competitive advantages, are the intangible ones. However, the tangible ones are the most visible, the most obvious. If we look at a company's balance sheet we will see mostly tangible assets (although in recent years the intangible ones have started to appear). If a balance sheet shows mainly tangible assets, the resulting image may be misleading as regards capabilities. A large amount of intangible resources that endow it with future possibilities that are unimaginable for the other organization. The continuous development of

knowledge, the acquisition of competences, experimentation, the dissemination of knowledge and the creation of a learning culture have been highlighted by several authors. If we return to the strategic process, from this perspective of capabilities, the first question the company has to ask itself is this: what capabilities are needed to carry out the strategy? These competences can be divided into five main categories:

- **Skills.** The knowledge, the experience, the aptitude possessed by the people in an organization. In this category we can study in depth everything that is encompassed within the area of human resources. In this way we are adding the perspective of the human resource area to the strategic process. Therefore, the organization must ask itself what skills its staff must possess in order to carry out the strategy the company plans to implement.
- **Technology or know-how.** Not all knowledge lies in the people who make up the organization. Here we would include such potentially important aspects as technology, patents, systems and databases. If we consider the areas of the company, here we would be adding those types of knowledge that are based on R&D, information systems and operations.
- **Other intangibles.** Not all intangibles have to do with the people in the organization or its technology or know-how. Intangibles such as a particular brand image and in-depth knowledge of that brand might be needed. Or the strategy might require a large market share offering a dominant position and the opportunity to have a close knowledge of the market.

Within an open-systems framework, Lado and Wilson (1994) showed how HR activities, functions, and processes may contribute to the development and utilization of managerial, input-based, transformational, and output-based competencies and how HR systems can destroy and/or impede the development and utilization

of such competencies. By emphasizing processes for developing and utilizing firm-specific, causally ambiguous KSAs, their competency-based view compliments and extends the behavioral perspective of strategic HRM, which has emphasized observable and transferrable role behavior of employees as the basis for creating competitive advantage (e.g., Schuler and Jackson, 1987). To the extent that the configuration of the competency-enhancing HR activities, functions, and processes depends on the unique and idiosyncratic capabilities for "carrying out new combinations" (Schumpeter, 1934), and insofar as such a configuration produces positive synergies for the firm, it may hold the potential of sustained competitive advantage.

They showed how HR systems can enhance the development and/or utilization of organizational competencies, on the one hand, and how HR systems can destroy organizational competencies and/or constrain their development and utilization, on the other. Firms with HR systems that facilitate the development and exploitation of managerial, input-based, transformational, and output-based organizational competencies will have a greater likelihood of achieving competitive advantages than firms that have HR systems that destroy these competencies and/or pre-vent their exploitation.

Organizational competencies must be continually replenished, up-graded, and deployed in order for the firm to gain and keep a competitive advantage (Amit and Schoemaker, 1993; Porter, 1985; Ranson, 1987; Reed and DeFillippi, 1990; Stalk et al., 1992).

## **2. The Role of Human Resource Management in Knowledge management**

Lately, many organizations have adopted a concept of knowledge organization (Mckenzie and Winkelen, 2004). A knowledge organization is a management idea, describing an organization in which people use systems and processes to generate, transform, manage, use, and transfer knowledge-based products and services to achieve organizational goals. The literature on knowledge organizations generally

depicts them as departure from the bureaucratic form. The difficulties of employing valid and reliable rules and performance measures have led many authors to emphasize cultural-ideological or clan control instead of bureaucratic or market-like forms or internal control (Van Maanen and Kunda, 1989). A knowledge organization also links past, present, and future by capturing and preserving knowledge in the past, sharing and mobilizing knowledge today, learning and adapting to sustain itself in the future. Alvesson (2004) defined knowledge-intensive as organizations where most work is said to be of an intellectual nature and where well-educated, qualified employees form the major part of the work force. Typical examples of companies in this category are law and accounting firms, management, engineering and computer consultancy companies, advertising agencies, research and development (R&D) units and high-tech companies.

Therefore, knowledge needs to be “managed”. Let us take a look at a few knowledge management definitions:

- Knowledge management creates basic conditions for organizational adjustment, survival and competence when facing an increasing number of irregular changes in an environment. In its general idea it consists of organizational processes, which seek synergic combination of possibilities of data and information processing, as well as processing the creative and innovative capabilities of human beings (Malhotra, 1998).
- Knowledge is information with the added value of the human mind. Knowledge management is a process of accumulating, distributing and efficiently applying knowledge (Davenport, Marchand, 1999).
- Human resources, information technology, and information included in strategic business processes must be closely allied with management and work culture in an organization. Only the synthesis of those key factors of knowledge management is essential for creating organizational capability, and

for benefiting from the entire base of information and the knowledge in organization (Kalseth, 1999).

In the last definitions we can spot three factors of knowledge management: the use of information communication technology Song (2002), information management, and people’s deeds and their values (Wasko, Faraj, 2005; Bath, 2000) puts a value even on the amount of effort required to deal with individual factors of knowledge management: 10% of the effort should be devoted to technology 20% to organizational processes, and 70% to people. Therefore, knowledge management functionally covers fields of learning and organizational development, human resources and information technology. These three fields overlap and knowledge management is in the centre of this overlap. The message of this model is clear; the elements of successful knowledge management include: common, reliable technological structure, which makes exchange possible; connecting people who know, know how to ask, listen and exchange experiences; organizational processes, which ease the exchange, acknowledgement and filtering.

Awad in Ghaziri (2004) define the knowledge management with the following elements: the use of accessible knowledge from outside sources; impressing and stockpiling of knowledge into business processes, products, services; presentation of knowledge in data bases and documents; acceleration knowledge growth through the organizational culture and initiatives; transfer and dissemination of knowledge through the organization; assessment of knowledge value (wealth). Knowledge management is a process of capturing and using collective organizational experience in all activities – whether it concerns documents, data bases (explicit knowledge) or stocked in the heads of the employees (tacit knowledge).

The organization’s goal is to observe all processes as knowledge processes. The conceptual scheme of the knowledge organization (Awad and Ghaziri, 2004) includes knowledge creation, its capture, organization, refinement and dissemination. The last phase of preserving and maintaining ensures for the

spreading of knowledge to be exact, reliable and based on organizational standards which are set in advance. The main goal of short term knowledge management should be an innovation's growth (Darroch and McNaughton, 2002), whereas the long term knowledge deals with an expansion of organizational skills.

Svetlik and Stavrou-Costea (2007) analyzed the link between knowledge management (KM) and human resource management (HRM) and proposed the integrative approach. They defined HRM as managing employees, their interpersonal relations and the relation with the organizations. From the perspective of human capital, HRM can be the leverage to enhance organizational capabilities to produce new knowledge and new value. They argued that because knowledge is embedded in individuals and in organizational routines, processes, practices and norms, HRM and KM have common activities. They compared the KM cycle and HRM activities and found that knowledge acquisition, knowledge creation and knowledge utilization include many activities shared with HRM. They argued that managing knowledge and managing human resources even though are not interchangeable concepts, they are certainly highly inter-related (Evans, 2003).

HRM itself has changed much during the past decades due to its new role in organizations. Specifically, HRM's role is changing from operational to strategic. HRM is expected to build a knowledge-centric culture (Holbeche, 2005). With this purpose HR managers should re-visit learning in the knowledge economy, understand the motivation for learning amongst knowledge workers and facilitate communities of practice (Evans, 2003). HRM gets a new role and responsibilities and faces many new challenges (Burke, Cooper, 2005). Lengvik-Hall and Lengvik-Hall (2005) argue that it is becoming clear that success in the knowledge economy depends on organizational strategic capability and HRM is one of its pivotal sources. A knowledge economy creates a watershed situation for HRM. If, as in the past, HR managers focus on conventional activities of staffing, compensation, training and development, and so forth, the HRM function is

destined to become increasingly tangential to the core of a firm's strategic activities. If, however, HRM capabilities have an influence on the increasingly important role that people play in developing human resources, capabilities, and competencies that lead to strategic success, then HRM will be poised to enhance its value to the organization (Lengvik-Hall and Lengvik-Hall, 2005).

Researchers like Atkinson (1984) who designed the flexible firm concept argue that because of the difference in employees' knowledge and skills, and because of the differences in value of this knowledge and skills to the firm, the latter uses different employment arrangements to manage those skills. To this respect, HRM is obligated to develop unique HRM systems to manage each type of activity (Morris et al., 2005). Sometimes these activities require different or even opposite HRM practices and balancing them poses a challenge: HRM practices should be focused on developing the skills of employees, motivating employees to use their skills via incentive systems and provide a work environment that allows them to do so.

To this respect, HRM may be affected by the global shift towards a knowledge based economy and intellectual work (knowledge work), one of the major trends of the past decade in the global economy. HRM is understood today to be central to organizational welfare.

A knowledge organization is characterized both by a high level of complexity and a high level of contingency of action. That is why a high level of openness and a minimum level of specification of action space are expected. In other words knowledge organizations are characterized by high levels of developed skills - knowledge workers are sometimes called workers working with symbols (Reich, 1991), human capital (Morris et al., 2005) - flexibility and operational autonomy of employees (empowered workers), participative management, decentralised structure - sometimes called a disorganized organization (Hislop, 2005) and organizations without boundaries (boundless organization) (McKenzie

and Winkelen, 2004).<sup>10</sup> That is why we argue that the level of intellectualisation in organizations has an impact on all these dimensions. Schuler and Jackson (2002) linked HRM practices to these dimensions of organization.

Employee participation is needed for the high quality of services being dependent on good interpersonal relations, including those between managers and employees; decreases indirect participation because trade unions and other representations of workers are weaker than before.....

In a large scale survey of companies many organizations in Western Europe reported changes in their structure during the 1990s (Fenton and Pettigrew, 2000): 30% reduced the number of layers in their hierarchy; 50% used project-based working practices more; 74% reported an increase in horizontal interaction; 82% increased investment in IT; 65% reported using outsourcing more; 65% reported using strategies alliances more.

In order to foster knowledge flows around the organization many organizations invent HRM practices to facilitate knowledge transfer. Darroch (2003) analyzed KM practices and behaviors. She measured knowledge acquisition, storage, dissemination and the use of knowledge. She found a three factor solution that determines knowledge management that, in turn, has an important impact on firm performance and innovativeness. These factors are responsiveness to knowledge (responsiveness to the customer, a well-developed marketing function, response to technology and competitors and flexible organizations); knowledge acquisition (employee attitudes and opinions, a well-developed financial reporting system, sensitivity to market changes, the science and technology profile, international partnerships with customers, market survey) and knowledge dissemination (dissemination of market information, knowledge dissemination on-the-job, techniques for dissemination, technology for dissemination, written communication). All

these elements of successful knowledge management present a huge challenge for HRM to navigate their strategy and policies in these directions.

Scarborough and Carter (2000) present a comprehensive review of the ways in which HRM issues could be linked to the topic of KM. They suggested framework of five perspectives as linking HRM practices to knowledge management issues. The “best practices” perspective assumes that it is possible to develop a set of HRM “best practices”, which facilitate knowledge sharing, and that these practices will be universally applicable to all types of organization. For each of the four perspectives they assumed direct impact to knowledge management outcomes. First perspective: high commitment management will encourage knowledge sharing. Second perspective: tailored HRM for knowledge workers will improve motivation and retention and performance of knowledge workers. The internal and external fit of HRM will provide HRM and business strategy and codification. Third perspective: development of human and social capital will ensure a long run strategic advantage. Fourth perspective: developing and supporting learning will improve sharing of learning and tacit knowledge. These links Scarborough and Carter (2000) provided shed light on the personal nature of knowledge (and human/social capital) and the need for human motivation in sharing and utilizing knowledge (Hislop, 2003).

Minbaeva (2005) asked what is in the “black box” (Witherspoon, Bergner Cockrell, and Stone, 2013), what are the mediating variables that should have been considered when arguing for a link between HRM practices and knowledge transfer? She tested factors (1) that foster absorptive capacity of knowledge receivers. (2) She also tested the supporting learning environment.

(1) Absorptive capacity includes both employees’ ability and motivation. Factors that foster absorptive capacity are prior knowledge of receivers and the intensity of effort (Cohen and Levinthal, 1990). There is extensive evidence that investment in employees’ training enhances the human capital of the organization,

which later has positive effects on organizational performance.

But employees' performance can be limited because of absence of motivation. Minbeava (2005) argued that HRM practices can influence individual performance by providing incentives that elicit appropriate behavior. The incentive system includes performance-based compensation and the use of internal promotion systems that focus on employee merit and help employees to overcome invisible barriers to their career growth. Promoting employees from within the firm is likely to provide a strong motivation for employees to work harder in order to be promoted (Minbeava, 2005).

### Conclusion

From the human resource management perspective, Morris, Snell and Lepak (2005) argue that the importance of knowledge management for a competitive advantage makes the boundary between strategic management and human resource management almost indistinguishable. They also noted that while HRM is often on the "front line" in developing the knowledge base in an organization, it is almost never in a leading role when it comes to creating a competitive advantage. However, in today's environment, the assumption of people-embedded knowledge requires that we re-examine our approaches to HRM. As firms depend more upon employees who contribute in different ways based on differences in their knowledge, it is increasingly important to do two things: first, firms must recognize how they can best manage those differences and second, they must recognize how they can best combine those difference.

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## KNOWLEDGE MANAGEMENT AND LEADERSHIP - THEIR IMPACT ON CREATING SUSTAINABLE COMPETITIVE ADVANTAGE

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**Abstract:** Modern economy, less oriented to natural resources, and more on the intellectual aspects of asset, based on the fact that the competitive advantage of any company is the knowledge that she possesses. Terms of economic theory terms, it is necessary to build a strategy that will produce super profits, ie. strategy that will enable the efficient exploitation of knowledge companies to win competitive advantage. It is assumed that knowledge in its explicit or implicit manifestations can be managed. The question is how to develop a knowledge management strategy that would exploit this valuable resource and protect its value.

Possibility of knowledge management is becoming increasingly important in today's so-called. knowledge economy (knowledge economy). The creation and dissemination of knowledge within modern organizations is becoming increasingly crucial factor in achieving and maintaining its competitive advantage. In fact, the only sustainable competitive advantage of modern organizations derives from what the company knows, how efficiently used what you know and how quickly acquire and use new knowledge. Modern organizations in the era of knowledge is one who learns, remembers and acts on the basis of the information and knowledge available in the best possible way.

**Key words:** *knowledge management, sustainable competitive advantage*

### 1 INTRODUCTION

Knowledge management involves the adoption of collective knowledge in order to achieve the business goals of the company. In short, knowledge management has a role to ensure that people have the knowledge they need, where they need and when they need, ie. The right knowledge at the right place and at the right time. The broadest approach to this concept is a reflection on knowledge

management as a process that represents the unity of the three components [1]: people, process and technology. The aim of the modern organization is that all business processes are viewed as processes of knowledge. Such a starting point involves the creation of knowledge (Creation), gaining knowledge (Capture), preservation of knowledge (Storing), knowledge sharing (Sharing) and the application of knowledge (application) in a manner that will contribute to the creation of added value for the organization.

### 2 Knowledge Management and Organizational Processes

As a strategic view of knowledge management, which considers the union between technology and human factors on survival in the changing environment emphasizes the definition according to which knowledge management includes the most important critical issues of organizational adaptation, survival and competence in dealing with all the growing and rapid changes in the business environment. In essence, knowledge management is the embodiment of organizational processes that seek synergy and combination of data and information that increase the capacity of information technologies, and create and innovate potential human resources. This is the concept of the collective knowledge of an organization whose ultimate goal is the efficient application of knowledge to situations in which decisions are made. It is particularly important to emphasize that this knowledge should be available with really little work and effort, and it can be applied. The concept of knowledge management represents, therefore, "the ability to be in a relatively short time, there is

information that will allow everyone in the organization to make the best decision, whether it is on market conditions, product, service, process, planned activities of competitors or other information important to the success of the company.

In short, knowledge management is the process through which organizations generate value of their intellectual assets based on knowledge.

A study of management knowledge, invariably leads to defining and analyzing the factors which influence the effectiveness of the program management knowledge can define as positive or negative, as well as enhancing or limiting, as well as motivating or demotivating. In this sense, speaking about leadership as a factor in the success of the program management skills, we have witnessed the almost unanimous approval of contemporary authors, theorists and practitioners in the field, that one of the key points in this constellation takes leadership. Given the complexity of the modern business environment, globalization, the rapid and continuous development of technology, knowledge workers as bearers of innovative and creative processes, but knowledge as the basis of competitive advantage of the organization, we may reasonably conclude that the role, competence and responsibility of the leader is of crucial importance for business contemporary organizations.

### **3 THE ROLE OF LEADERS IN KNOWLEDGE ECONOMY**

Organization that at its center has implemented program management skills and fighting for their competitive advantage in an environment of knowledge economy possesses the characteristics and specifics that require a special, towards knowledge-oriented leaders or, as we have already named, leadership skills. These leaders are facing a very difficult task. It is necessary to manage the organization with the following characteristics: a priority flow of knowledge; relationship with service users is no longer a one-way, but transforms into a partnership that creates a common solution in which the two-way flow of knowledge; employee whose everyday life

includes program management skills to know more about the technical basis of the business, have a better feel for the market and closer to the customers than their employers; productive factors such organizations, creative work or knowledge workers, work best in creative chaos in the conditions in which the organizational hierarchy is irrelevant; the primary driving force behind the organization is to control the flow of information and it is subject to the Internet and the internal network; basis of sharing knowledge among employees is a trust; offices are not a symbol of power and importance of informal communication is the maximum stresses. Management of this organization is very difficult, responsible and challenging task.

#### **3.1. LEADER OF KNOWLEDGE**

In the literature, already under the name of "knowledge leader" (Knowledge Leader). Its existence is confirmed in practice examples of many organizations, but some of its importance, type, name, position and role in the organization, also conducted many hearings. What is indisputable, and about which most authors agree is that the organization is going in the direction of the strategy and implementation of knowledge management program knowledge, the key issue to create a culture that will support the cooperation and trust. If knowledge is the basic resource of modern business and the means of achieving competitive advantage of the organization, then change the relationship that employees have toward their jobs and their colleagues, the measurement of which is a new way of doing business for the organization, building trust as a precondition for the peaceful sharing and dissemination of knowledge within organizations, globalization and technological development, and requires a leader who, thanks to their special characteristics and skills in these conditions fail to manage knowledge in the organization and the requirements of variable and turbulent environment to act out.

Commonly encountered in practice next leaders of knowledge, with various names, organized differently to certain jobs, work tasks, and place in the organizational structure:

1) The engineer of knowledge (Knowledge Engineer). This type of leader occurs in organizations that have a very tactical / procedural approach to knowledge management. The task of the leader is to make his name by yourself could conclude that explicit knowledge into instruction, program systems and codified applications. Practically, in this way be reduced, and reduces the current knowledge to be codified. The downside of this set features the leaders know is that the more detailed codification of knowledge conducted in this way, precludes its change when the environment demands it.

2) Analyst knowledge (Knowledge analyst) is responsible for the collection, organization and dissemination of knowledge, usually upon request. This type of leader conducts its functions in a manner that becomes storage best practices. The lack of such a tool designed leaders know is that his departure from the organization there is a risk to go and best practice. Another potential danger behind leaders such knowledge is to become invaluable to their immediate environment, so it is not able to use their skills at the disposal of the other parts of the organization, which is required.

3) Knowledge Manager (Knowledge Manager) has a supervisory role. This approach to leadership knowledge the best results in the organizations in which they believe that knowledge is the result of various individuals across the entire organization. Knowledge Manager is responsible for coordinating the efforts of engineers, architects, and analysts. This position is best suited to large organizations where there is a risk that a large number of separate processes of sharing knowledge is isolated and fragmented. In this case, Knowledge Manager should provide the same level of coordination of these activities in all parts of the organization.

4) The knowledge (Chief Knowledge Officer) is very traditional, hierarchical approach to managing knowledge. Director Knowledge is responsible for providing a broad coordination of all the leaders of knowledge and reports directly to the Executive Director of the organization. Designed for the success of this leadership role of knowledge, it is establishing

a culture of sharing knowledge within the organization.

5) Knowledge Management (Knowledge steward) is very similar to a manager of knowledge. This kind of knowledge of the most successful leaders in the organizations that do not see knowledge as a corporate resource that must be managed from the top to the lowest level in the company. This role is quite unreliable in practice means ensuring minimal but constant customer support knowledge in the form of help with the methods and practice of leadership skills.

Which of these roles best suited to the organization, will depend on various factors such as the extent to which there is sharing of knowledge in the organization, willingness and support leadership skills, as well as the receptivity of knowledge management culture in the organization. Regardless of what the role of work, there is no doubt that the leader of knowledge plays a major role in achieving the success of the program management of knowledge in the organization.

### **3.2. "7 Cs" - LEADERSHIP SKILLS**

The knowledge economy requires a transformation of the management of our most precious resource, human resources. This transformation requires the function of leadership to the traditional function-based command and control, moves to the function of connecting, networking and guidance.

Speaking of leadership in the knowledge economy, the authors Debra Amindon and Doug Macnamara, who are among the leading theoreticians, and practitioners of knowledge management believe that the modern leaders of those who are not afraid of speed changes, which are grappling with the constant learning, who know that effective management is not a matter of having the knowledge, but to know how to use it, who know that it is not enough to know the modern concepts of management, but also to implement them. In the opinion of the mentioned authors, regardless of what leadership is more art than science, it is necessary to seek an appropriate measure that will allow us to measure the yield of successful leadership (ROL, Return - on - leadership). [2]

Connection between knowledge and progress is not new and unknown. However, the knowledge economy, the ability of knowledge management and increase the effects that we have the knowledge the more you develop and share, and requires a new style of leadership. There are seven areas that make leaders successful knowledge, so-called. "7C" leadership skills:

1 Leadership skills is a matter of context (Context). Leader of knowledge must understand the complex nature of the context within which the act, and to be able to convey that sense of care that inspires others.

2 Leadership skills is a question of competence (Competence). Leaders know they have to acknowledge that the competence based on knowledge and that they are much more dynamic than attributes such as skills. Building a competency framework requires systematized learning.

3 Leadership skills is a question of culture (Culture). Leaders need to realize the connection between motivation (psychology) the individual and the culture (sociology) organization. You should know the tradition and heritage (anthropology), and to know that more than 2% of its period managers need to devote a vision that represents the life-force business for future generations.

4 Leadership is a matter of knowledge communities (Communities). Knowledge leaders need to understand the value of the team - teams, networks and communities that are working to realize that vision. "Collaborative advantage" may be competencies of the new millennium.

5 Leadership skills is a matter of conversation and common ground (Conversations, Common Language). Leaders must know how to develop a common language and to understand that it is much more power in the results of the dialogue, but in the documents that arise as a result of individual planning process.

6 Leadership skills is a question of Communications (Communications). Leaders should evaluate communication processes, both technical and interpersonal. This evaluation should be based only on what is being communicated, but on what new they can learn and how new knowledge can be

applied in order to achieve the benefits of an organization or society as a whole.

7 Leadership skills is a matter of training (Coaching). Leaders should train and be trained by people who have similar skills and vision.

#### **4 THE EFFECT OF LEADERSHIP IN PROGRAM MANAGEMENT SKILLS**

According to Michael Porter, a potential source of competitive advantage can be found everywhere in the organization. To come to identify the potential of an organization to achieve a competitive advantage, it is necessary to analyze each component so. value chain: the five primary (input logistics, production, output logistics, marketing and sales, service and after-sales services) and four secondary activities to support the creation of value (the infrastructure of the organization, human resource management, technology development and procurement). All of these activities are undertaken with the aim of creating a bridge between strategy formulation and implementation to.

Based on Porter's value chain, the literature is the idea of forming the so-called theoretical analysis. chain model of knowledge (Knowledge Chain Model). [3] Model chain knowledge will enable more detailed analysis of the status and impact of leadership on successful knowledge management programs. The basic premise of the model is that the organization's ability to learn and the success of its projects, a very important component of organizational success and achieving competitive advantage. The primary activities of the value chain model of the activities that are common to the entire organization and that fall under the jurisdiction of the director of knowledge. The five primary activity includes:

- 1 The acquisition of knowledge (knowledge acquisition from external sources and undertaking activities that knowledge become eligible for future use)
- 2 Selection of knowledge (selection required knowledge from internal resources and taking actions that knowledge to make eligible for later use),

3 The creation of knowledge (knowledge creation or discovery of a new or getting out of the existing knowledge)

4 Internalization of knowledge (updating of organizational knowledge resources distribution and storing acquired, selected or created knowledge) and

5 Outsourcing Knowledge (embedding knowledge into organizational outputs for release into the environment of knowledge).

In addition to the primary, secondary, there are four-chain model, the activity of knowledge that support the primary activities. The secondary activities include:

1 Leadership skills (establishing conditions that enable and facilitate the beneficial activities of Knowledge Management)

Second co-ordination skills (management of interdependent activities of knowledge management in order to ensure the right processes and resources at the right time),

3 Control knowledge (providing that the necessary process knowledge and resources are available in sufficient quantity and quality to ensure the set requirements) and

4 Measurement of knowledge (assessment value resource of knowledge, process knowledge and their developing).

Four secondary activities of management knowledge, leadership occupies a primary position. Leadership skills sets the basic tone of the organizational culture focused on coordination, control and performance measurement, qualifies the expression of each of the primary activities. In short, leadership should enable the creation of conditions for achieving successful and fruitful knowledge management, through eight other activities. Basic features such as inspirational leadership, mentoring, giving examples, in order to create trust and respect, cohesive and creative culture, establishing a vision, learning, listening, teaching and sharing knowledge.

The examples of successful companies, so-called. corporate leaders, authors Cavaleri and Sharon, [4] stated characteristics of leadership knowledge and its relationship with the management of knowledge. According to the author, corporate leaders such as 3M, Best Buy, BMW, BP Amoco, Canon, Fuji Xerox, Hewlett Packard, Intel, Nokia, Siemens, Royal Dutch Shell, Sony, Toyota, Unilever and

Xerox, routinely talk about the importance of knowledge for their success in the long run. Some of these companies, such as 3M, Toyota and Xerox, have become little more than companies that use knowledge management. These companies have transformed themselves into organizations based on knowledge (KBO - Knowledge Based Organizations). What is important for the course of work, and as mentioned authors emphasize, is that the leaders of these knowledge-based companies, not difficult to manage knowledge (manage knowledge) within their companies, but also seek to skilled and knowledge-based methods (knowledgeably manage) are managed in order to achieve competitive advantage. So we come to the basic characteristics of the leaders of knowledge - understanding their primary objective, which is transforming its organization to organization based on knowledge that will use knowledge to achieve results that can be achieved by the competition. Leaders need knowledge management knowledge to integrate the development of knowledge (knowledge development) and be sure that the knowledge embedded in the activities, management system and infrastructure of the organization. Successful leadership that is focused on knowledge, but in terms of its utilization to achieve added value for the organization, given very positive results in practice, which is usually reflected in an increase in productivity and agility of the company, strengthening innovation, improving the reputation, enhancing creativity of employees and strengthening their morality. Each of these results is very important for the organization.

We can conclude that knowledge management is a major challenge for modern leaders. Almost in the literature there is an absolute consent theorists to the efficiency and success of the program management knowledge depends primarily on the attitude leaders on this issue. In fact, it is highly likely that if the leaders of companies do not realize the importance of program management skills, as well as potential benefits for the organization, the program will be doomed to failure. In the modern business environment, knowledge and learning are becoming an integral part of leadership, and the impact of leadership on the

implementation of the program management knowledge is very high. This can be seen not only in literature, but also numerous examples of good practice. Leadership only in conjunction with other activities, knowledge management can contribute to the success of this program.

Of course, the leadership that should be a factor that contributes to the knowledge management program has to resolve one of the fundamental dilemmas of leadership, and it is a way of management knowledge workers. In fact, it is Machiavelli raised the question whether the leader better to be loved or to be feared followers. His conclusion is that if a leader can not be both (a few people can), then it is much more efficient the latter - that it is the followers of fear.

In fact, knowledge workers do not respond positively to rigid measures of punishment and reward, as well as in their work, there is no simple reward system based on clear measurement of productivity. So, with all knowledge workers is based on creativity and relationships of trust. Therefore, the leader can not strictly adhere to one, exactly the set and predictable style of management, but it must, following signals from the environment and the signals sent by the workers themselves knowledge, adapt the situation, of course, in accordance with their own limitations and abilities. Leader in the evolving and complex business environment must be able to see the extraordinary potential of ordinary people, and that their decisions are made with a balance between idealism and pragmatism. Or, as some authors call this model of leadership "leadership from behind", defining it as a leadership that enables the creation of such organizational culture in which different people at different times, depending on the requirements of the environment, their aspirations, abilities, skills and direction of innovation, out the head of the group and lead it in the direction you need. This may be the way that knowledge workers to fully come to the fore, that the benefits of the program management skills become apparent, and common knowledge is available to everyone in the organization contribute to the creation of added value for the organization and the effective and efficient decision making.

## **5 QUALITY OF BUSINESS, KNOWLEDGE AND COMPETITIVENESS**

Companies can create a competitive advantage from many sources, such as superiority in terms of quality, speed, security, service, design and reliability with lower cost, lower cost, etc.. Often it is a unique combination of all elements, not the one universal and magical solution, a combination that gives supremacy. It should be understood that the competitive advantage relative, not absolute. Drucker believes that the core of any organization is marketing and innovation. [5] Innovation is about delivering economic pleasures. It is not enough that a company offers a product or service. It must offer better products and services. Productive innovation is a different product or service that creates a new opportunity to meet the needs, not promotion. The main problems that exist in the domestic setting when it comes to market development are: [6]

- Failure to adopt the marketing logic
- Lack of understanding of integrated marketing concept,
- Misinterpretation of marketing,
- Inadequate treatment of investment in market development,
- Issues of organizational structure,
- Slowness to adopt new trends, methods and techniques of management.

Thus, the marketing has to be interpreted as a business philosophy whose importance stems from the fact that marketing brings together, coordinates and directs the work activities of companies to identify and anticipate and meet the needs and demands of clients.

The main problem of the lack of market success of local companies in the business probably is in terms of low productivity and inadequate business than price - quality. Domestic companies have in recent decades had significant problems with the productivity of labor, which resulted in cost growth and the formation of sales prices that were uncompetitive in the market. Notwithstanding the growth in the number of companies that have introduced quality management system and development of the quality movement in



the domestic economy, in general the results are still discouraging.

Unfortunately, domestic small and medium enterprises still lack applicable quality management system which significantly affects their competitiveness in both domestic and international markets. The managers of these companies mostly due to its lack of information they are not interested in investing in the implementation of ISO 9000: 2000 since they believe that they do not yet need. However, the reality of the international market it has quickly made him change their minds, but then usually too late, because the competition in this market distinct. In promoting international STANDARDS CIRCULAR except the state and its institutions must have an important role entrepreneurs because without their initiative and motivation all other efforts are futile.

The processes of globalization of markets and international competition require that the companies if they want to survive in their positions must possess three key resources including: funding, new technology and knowledge. The key to improving the quality of operations of domestic companies should look at the appropriate use of knowledge. Unfortunately, in addition to financial resources and new technology to domestic companies lack another resource, and it is knowledge. Education and knowledge are the creators of the new competition.

Local managers need the advancement of knowledge in the field of business management. Also, each individual employee of must continually improve and promote their knowledge. Collection of such persons who continually improve and enhance the productivity of knowledge builds productive company. Improving knowledge, improves the productivity and operations. Knowledge is elementary business resource. All other business resources are of secondary importance, because their productivity is directly dependent on the use of knowledge. Moderno (information) society is a knowledge-based society in which knowledge has become a fundamental resource and a useful good.

In terms of the modern economy, the development of the competitiveness of the

company must start in the domestic market, where the company is exposed to the attacks of the global market leaders. Comparison with competitors must start for the domestic market, in order to define a clear market position of domestic companies and recognized an action plan for bridging the gap of competitiveness. On the other hand, the issue of the lack of competitiveness of domestic enterprises for short periods can be solved by using reengineering, and long-term perspective based on the implementation of the concept of quality management systems and the creation of integrated management systems. The quality management system is a kind of system management which, in terms of quality, the water company and managed. Series of international standards are primarily focused on satisfying the demands of clients as one of the basic preconditions for the continuous improvement of the quality of operations in order to improve competitiveness.

For domestic enterprises faced with the challenge of adapting to the market conditions and the demands of customers and other stakeholders, there is a need to regulate the business processes and the integration of management systems in order to improve business performance and gain a competitive advantage. Integrated management system to build a quality management system, environmental protection and health and safety at work. It can be said that implemented and maintained integrated management system is a precondition for the survival of the company in the market. Therefore, the use of integrated management systems is one of the most serious ways to achieve the competitiveness of domestic enterprises in the international environment as possible to shorten the time required to achieve the elements of business excellence, which creates conditions for enterprises in less developed countries, respecting the requirements of international standards, create business system that can provide a successful presence in the market. Improving the knowledge of managers and expert teams of local companies is the most important way to improve the competitiveness that is based on the implementation of integrated management systems.

## **CONCLUSION**

Modern economy, less oriented to natural resources, and more on the intellectual aspects of asset, based on the fact that the competitive advantage of any company is the knowledge that she possesses. Terms of economic theory terms, it is necessary to build a strategy that will produce super profits, ie. strategy that will enable the efficient exploitation of knowledge companies to win competitive advantage.

The creation and dissemination of knowledge within modern organizations is becoming increasingly crucial factor in achieving and maintaining its competitive advantage. In fact, the only sustainable competitive advantage of modern organizations derives from what the company knows how effectively use what it knows and how quickly acquire and use new knowledge. Modern organizations in the era of knowledge is one who learns, remembers and acts on the basis of the information and knowledge available in the best possible way.

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## THE ROLE OF THE COMMUNICATION PROCESS WITHIN THE MANAGEMENT ACTIONS IN THE POLITICAL AND BUSINESS WORLD

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**Abstract:** The model of communication aims to improve the internal perception of the employees about their working institutions, and improve the external perception of the institution in the eyes of co-workers and the general population.

The analysis of the model of communication in the political world and the business world has its common aspects and some differences. Namely, it is a process that is the basis of creating good relationships and accomplishment in the institution of the working process at a high level.

Any gap in communication directly reflects the quality of decision making and creating inappropriate image of the institution. Political institutions are exposed to further analysis by government institutions and the media, based on that, the flow of information it is required to be at a high level and made the basis of preset parameters of successful communication.

Business world, on the other hand, is also necessary to take care of selecting the appropriate model of communication because it is subject to regular monitoring by the target groups according to their interest.

The success of communication indicates the successful realization of the mission and vision of the institutions (political and business).

*Keywords: communication, leadership, political institution, business world*

### **Introduction**

Communication involves sending and receiving information. Leaders become recipients during the process of

communication, which is needed to master the art of listening. Leaders allow others to take the initiative when they become listeners. Managers find this project especially difficult because they have to accept a secondary role in the discussion.

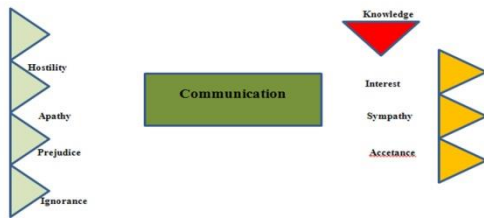
Regardless of whether it is economic or political aspect of analysis, science of the institutions in the last twenty years experiencing significant increases.

In organization there are more types of communication, internal and external. Internal communication is sending information to the employees. Some organizations have internal way of communicating by each other.

### **1. Model of communication - and essentially features for creation of institutional leaders**

Communication is the activity of conveying information. The word communication is derived from the Latin word "communis", meaning "to share". Consequently, according to Pepperberg, "to share" is one the most important characteristic of any communication success. More precisely, this is the main characteristic of all of the leaders in the communication (Pepperberg, 2002: 34)

**Picture 1: Exploring the communications process**



Source: Pepperberg, I., M. (2002). *The Alex Studies: Cognitive and Communicative Abilities of Grey Parrots*. Harvard University Press

According to Wood, the most consistent model for representing communication is (Wood, 2002: 78):



The success of the application of the model of communication aims to create a successful leaders in the communication process.

Communication involves sending and receiving information. Leaders become recipients during the process of communication, which is needed to master the art of listening. Leaders allow others to take the initiative when they become listeners. Managers find this project especially difficult because they have to accept a secondary role in the discussion. Leaders accepted this role when needed because they know that listening has increased leadership in the organization. Leaders solve the problem of marginal listening, which involves little more than an occasional listening. Leaders also solve the problem of assessing listening, which means listening with the reason not agree with, refuse or cut the communicator speech. Effective leaders put themselves in the frame of the speaker accomplishes the following suggestions.

During the performance of the communication process, according to Richmond and McCroskey the person may

experience some communication barriers (Richmond, McCroskey, 2005: 156):

- Individual differences
- Gender differences
- Generation gap
- Lack of trust
- Past experience
- Differences in education
- Cultural differences
- Personal beliefs
- Language
- Pronunciation and tone
- Perception

Leaders reject superficial layers of the communication process and hear the meaning contained in the words and gestures to reach the main target of the message. Leaders focus on whether communication is intellectual or emotional in bringing attention to expressions such as "I think" in terms of "I feel" or "I know that this is true" in terms of "I have a hunch about this." Leaders listen for words that convey a hidden message. One of the most important characteristics of a leader's the ability to follow the gestures and non-verbal elements of the speaker (Jolić, 2003: 35).

The exchange of the communication process serves both sides best, when it is need to learn. The skilled listener can learn a lot about its partner in the communication process. Leaders know that whenever listen something from someone, they are revealed to them. Leaders also can learn something by looking at their reactions to attack, criticize, etc. Finally, leaders can learn a lot about the relationship between them and the other person how they are honest with one another, whether and to what extent the other person feels the need to defend and which are sensitive areas that other person avoids and why (Richmond, McCroskey, 2005: 162):

## **2. Communications within the management/leadership of the political institutions**

Regardless of whether it is economic or political aspect of analysis, science of the institutions in the last twenty years experiencing significant increases. In fact, it is a reference to the needs of members of the internal organization and external stakeholders in the process of communication within the organization.

An especially interesting aspect of the analysis the communication process is within the political institutions. It is a set of management which need to be focused on leadership staff within the team. The process of communication is particularly important indicator of the level rating of the institution in terms of its obligations accomplishment (Fox, 2006: 48).

Political institutions are different from other business institutions due to the need to import additional thread management, due to the sensitivity of the message conveyed. It is the institutional field of action that is associated with several aspects of daily life: social, political and economic. Moreover, it is followed by media attention. From this point of view, the communication within the political institutions, it is needed to be shown at a higher level, ie as a synchronization process of the entire workflow.

The model of communication which includes features of a good listener, sharing information, and monitoring the status of interlocutor aims to create a consistent process of performing work duties. In this context, the spirit of management leadership within political institutions will allow the creation of a state within which each employee is free to express an opinion, to create a view based on different perceptions and to see that his attitude is appreciated.

According Rahn, the greatest sensitivity to the political institutions in terms of their management is finding appropriate model of communication to provide a

consistent flow of sensitive information, that will allow the information to flow to the appreciation of each person in the communication and thus will highlight the information that is in favor of the institutional image (Rahn, 2000: 37).

Leaders of the political institutions, as and the other employers in these institutions interact with other relevant institutions at national level, especially with the government institutions. This has an influence on the transmission of the sensitivity of the message, and the need to create a unique communication approach with respect to the specific needs of the institution.

What is important and what points Reese is that the form of political institutions varies greatly, and requires constant adjustment model of communication and proper training of staff within the institutions about the new approaches of the communicating process and sharing information (Reese, et al, 2001: 98)

## **3. Communications within the corporate business management**

To have a success in business important is to be a good communicator. Everyone especially manager has a different way to communicate in work and everyday life. Sometimes is preferably to use a consulting service to advance the business. In communication is important to understand the message which is send from sender to the receiver.

In organization there are more types of communication, internal and external. Internal communication is sending information to the employees. Some organizations have internal way of communicating by each other. External communication is used for formal and informal meetings with clients, suppliers or with new partners in the business. The most important step in communication is to decide what we what to say and who we want to reach. (Lehman, C., DuFrene D., 2008:38).

Managers are involving some different project for communication and if some of it is successful that will be implemented in every department of the organization.

Managers are communicating by telephone, mail, e-mail or business café and meetings. Meeting is efficient way to complete work. (Gjorgjiovski, 2011: 126).

The culture of the partner country is important too. For example: Americans will want to “get down to business” within 10 minutes of the meeting without any rapport. Body language or non-verbal communication could help for easier understanding the speaker. (Spiers, C., 2011:13)

### Conclusion

Exchanging information and common understanding between speakers is the key of successful communication process. Sending information and receiving it depends from quality of the information.

Leaders allow others to take the initiative when they become listeners. Managers find this project especially difficult because they have to accept a secondary role in the discussion.

Some managers meet their co-workers ones a week or ones a month to delegate its duties. On the meetings communication could be formal or non-formal. Each manager has own still to communicate with others especially with their co-workers. A good and genuine skill is the key to delegate in the right way.

Effective communication depends from difference between speakers. Desirable is to has no barriers between them.

If we could learn to understand the other people style for communication we could find a way to understand their message.

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## THE RIGHT TO SECRECY OF COMMUNICATIONS - SITUATIONS AND CHALLENGES

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**Abstract:** In this paper, the basic elements of the right to secrecy of communications are presented. We analyzed the treatment of this fundamental right in international documents on human rights and in the constitutions of modern democracies. Also, we established the scope of protection of the confidentiality of certain types of communication. Moreover, we have identified the parts of the process of speech and written communication whose secrecy is protected in accordance with international standards.

Special attention is devoted to the contemporary challenges facing the respect the secrecy of communications. In this regard, we analyzed the impact of the expansion of modern communication technologies on the confidentiality of communication. As a special challenge we analyzed the application of new methods for dealing with security threats on a national and global level, which among other things include interception of communications to collect information and evidence of involvement in criminal activities.

**Key words:** *secrecy of communications, modern technology, special investigative measures*

### Introduction

Secrecy of communications is the person's right to say something, write or delegate an information, data or a secret, or share something with someone, to decide whether someone else, or which other person needs to know the content of what is said or entrusted. Considered as a separate segment of the single right to privacy in which are embedded the inviolability of personal life, family life, home and communications. The core of this right is consisted of an unfettered and uncensored communication with other people. The right also applies to the secrecy of self-communication expressed in the form of diaries, notes, opinions and other tangible personal records. Privacy of communications covers the security and privacy of mail, telephones, email and other forms of communication. The content of the communication must not be discovered by other

persons not involved in the communication or by the public bodies. The obligation to respect this right applies to all other individuals, institutions and state bodies. This right implies an obligation for the state to create conditions for citizens to exercise their right to privacy in communication.

Among the human rights, the right to secrecy of communications falls into the category of so-called first generation rights. Today it has a recognized status as "an old right in a new world".<sup>1</sup> This is because expansion of modern means of communication has dramatically changed not only the way and forms of communication, but also in the culture of communication between people. In addition, this right on the surface placed yet another very important question - question of the right to secrecy of communication.

### 1. Treatment of the right to secrecy of communications in modern democracies

The right to secrecy of communications has a long tradition of explicit recognition as an inalienable right, especially in European countries. The right to secrecy of letters sent was contained in numerous draft texts of the French Declaration of 1789, although not in its final version. Explicitly is recognized a year later. In Germany, indirectly it is recognized in the early 18th century, when with the initial regulation the post office established that postal services should respect the confidentiality of any letters or other document sent.<sup>2</sup> The recognition of the secrecy of letters as a constitutional right was first made to Article 38

<sup>1</sup> Ruiz, B, Privacy in telecommunications, A European and American Approach, Kluwer Law International, The Hague, 1997, p. 1

<sup>2</sup> More in: Ruiz, B., Privacy in telecommunications, A European and American Approach, Kluwer Law International, The Hague, 1997, p. 64

of the Constitution of the German state of Hesse in 1831. A little later, came the reflection of the new means of communication. Thus, in the Weimar Constitution of 1919, the expression "secret postal system" alludes not only to the secrecy of correspondence, but also to any action done by the postal system.

Today in most European constitutions, the secrecy of communication is guaranteed for letters and for other means of communication. Understandably, in older constitutions, as the Constitution of Belgium and Luxembourg, the terminology contained only guaranteed for secrecy of correspondence. In constitutions that do not contain explicit guarantees for secrecy of other communications, the basis for protection can be found through the wider interpretation of the provisions that are committed to the integrity and inviolability of the person. Also in the United States, the basis of the constitutional guarantee for secrecy of communication is found in the interpretation of the Fourth Amendment which guarantees the right of the people to be secure in their self, their home and correspondence, against unreasonable invasions of privacy through the searches and seizure of property. In the absence of explicit constitutional guarantees, the practice of American courts will play an important role. Recognition of the right to secrecy of communications in the case law of the United States is seen in the late 60's. For the first time in the case *Maryland Penitentiary vs Hayden*,<sup>3</sup> and especially in the case of *Katz vs the US*. In this case the Supreme Court explicitly recognized the legitimate basis of confidentiality of written and spoken (direct and telephone) communication in the Fourth Amendment of the Constitution of the United States.<sup>4</sup>

The basic international documents on human rights (as United Nation Universal Declaration of Human Rights; Convention for the Protection of Human Rights and Fundamental Freedoms; United Nation International Covenant on the Civil and Political Rights) contain the term "correspondence" for what we now call right to secrecy of communications. The use of this term corresponds to the time in which these

international acts were adopted. Today's understanding of the right to secrecy of communications goes far beyond just respect of the confidentiality of correspondence. The terminology of the term evolution is a result of a stronger, revolutionary change in the field of communications in the period following the adoption of these international documents. Since the embedment of this right in those documents, not only the means of communications changed, but also the culture of communication between people.

## **2. For which part of the communication process the law guarantees secrecy?**

International standards for respect of the right to secrecy of communication are based on the fundamental human rights documents. International standards are the basis that further provides legislative protection of this right nationwide. In the process of creating appropriate legislation for protection of the secrecy of communications, especially in European countries, the practice of the European Court of Human Rights had a strong influence.<sup>5</sup> Also of great importance are the recommendations of the Council of Europe that aimed towards elimination of opportunities for unjustified deviation from the right to secrecy of communications. This especially applies during application of measures that represent a potential violation of the right and are taken with the purpose to deal with global security threats worldwide.

According to the adopted standards, the law protects the secrecy of the act of communication, while the content of the communication is irrelevant. It is irrelevant, for example, whether the content of a particular communication implies criminal elements. The communication can contain explicit recognition of involvement in criminal activities, but if the content is found baseless and without legal procedure, then, it is a violation of the secrecy of communications. The part of the communication process in which the law

<sup>3</sup> *Maryland Penitentiary v. Hayden* 387 U.S. 294 (1967)

<sup>4</sup> *Katz v. U.S.* 389 U.S. 347 (1967)

<sup>5</sup> As the most significant, we can set aside cases: *Malone v. United Kingdom* (No. 8691/79), *Silver and others v. United Kingdom*, (No. 5947/72), *Kruslin v. France*, (A 176-A; 12 EHHR 547), *Huvig v. France*, (No.11105/84), *Kopp v. Switzerland* (No. 13/1997/797/1000), etc.



guarantees secrecy is determined by the type of communication in the certain case.

**Protecting the secrecy of voice communication** - in voice communication messages are transmitted and received by words. The law protects the confidentiality of the spoken words. They should not be unauthorized and unfoundedly discovered by other persons for whom they are not intended. The law secures the confidentiality of the moment of realization of verbal contact, for throughout the duration of the talk, until its completion. Voice communication can take place as a direct voice communication and indirect voice communication. In the case of voice communication by mobile phones, the protection of confidentiality applies to spoken words, and the location information of the mobile units. The right is not harmed if the content of one's phone conversation is discovered from the other side which took part in it. The discovery of content by one of the participants in the conversation is a matter of trust between the people who interacted.

**Protecting the secrecy of written communication** - in the case of written communication the law protects the confidentiality of transmitted and received letters and other written correspondence. It protects confidentiality of private and business correspondence. The protection is against the unauthorized and unfounded finding out the contents of the papers, or their censorship, preventing the sending or receiving. Usually, the right to secrecy must be respected from the moment when the transmitter of the content will receive the written communication (letter, greeting card, document, email, etc.) from the sender to the point when it will be handed to person who is the intended receiver of the content. In order to provide confidentiality, papers should be closed properly. This will disable its content to become easily available for a third party to whom it is not intended. In this type of transfer of content, subject to the protection can't be the secrecy of the names of the sender and recipient or their addresses. They are usually visible, especially the name and address of the recipient. Secrecy of the contents of the sent letter is the only thing relevant. The author reserves the right to respect the secrecy of the affidavit until its delivered to the person to whom it is addressed. Once written to reach

the receiver, the author of this writing no longer retains the right to respect of secrecy of his correspondence, because it is a matter of trust between the sender and receiver. Besides communicating with letters which usually are sealed in envelope or other appropriate form, the right stretches on to written text that is transmitted by means of technical devices. Recipient learns its contents by reading the text. Hence, the right of confidentiality applies to e-mail communication, telegraph communication and pager communication. In the case of e-mail communication, protection of confidentiality applies to the content of the communication, information on when (in time), where (from which computer or other means), from whom it was sent and to whom the message was intended.

### **3. Modern challenges to respect the right to secrecy of communications**

The challenges facing the respect of the right to secrecy of communications in modern society can be seen primarily in:

- **The expansion of communication technologies.** Advanced communication technologies significantly facilitate the functioning and communicating, but they cause erosion of the privacy of individuals. The computerization of society in almost every segment is a phenomenon that has made the modern man almost completely dependent on technology. The Internet has become an important tool for communication. As a global electronic communication system, it allowed the exchange of information of any kind. Each year, the number of new Internet users who communicate nationally and internationally increases. In cyberspace the physical and political boundaries are deleted. Providers can technically track and record every movement of the user on their website and get their communications and personal data. The capacity for collection, analysis and dissemination of information is almost limitless. The social network Facebook has archived private messages, photos and data which are posted on the wall by the user or his friends. Unfortunately, the possibilities of communication technologies often, unethically, put into operation some other interests; against

the interests of the individuals for respect of their privacy. Capturing information of specific activities in the Internet has become one of the biggest threats to privacy. Almost all countries have established some form of surveillance. The fact is that in most countries abuses have been discovered, sometimes in a large scale, including thousands of illegal interception of communications. The reasons for this are sometimes bizarre. Just as a reminder, we'll mention the scandal of the newspaper „News of the World" in 2011. With the hacking of voice mail and SMS messages, information was collected from the private life of public figures and people who experience personal misery, to their placement as sensationalist information. In 2013, the person Edward Snowden unveiled a program to monitor electronic communications „Prism" to American National Security Agency (NSA). According to Snowden, through companies Apple, Google and Microsoft, NSA has provided access to the users' electronic communications, their audio and video chats, photos, email. These scandals have deeply stirred the public and raised the question of the boundaries of ethics and responsibility in front of international and national regulations which guaranteed and protected right to privacy.

**- Application of special investigative measures.** The right to secrecy of communications is not an absolute right and it may be derogated when the deviation has legitimate grounds. Respect for this right nowadays is largely determined by the measures taken in the fight against organized crime, terrorism and other serious crime, both nationally and globally. With the reform of the criminal procedural systems of many countries, special investigative measures were introduced (SIM), as techniques of gathering information and data in order to detect serious crimes. In applying the SIM, the investigation of truth is seen as an intervention in individual rights of the suspected person.<sup>6</sup> Because actions can significantly penetrate the sphere of civil liberties and rights, in their application a reasonable compromise is accepted, between the protection requirements of a democratic

society and individual rights.<sup>7</sup> Interception of communications is a special investigative measure which involves audio or visual recording of communications by technical devices. Interception of communications deeply invades the privacy not only of persons who are directly monitored, but also in the privacy of those in their environment (surroundings). The nature of the measure does not provide a selective approach in undertaking the activities of monitoring. The non-selectiveness in taking actions is expressed both in staff and in terms of its content. From that perspective, the interception of communications is a quite controversial investigative measure. In terms of human rights, its application is on the limit of viability. Interception can be justified only if the need for derogation from the right to secrecy is measured in terms of value of societal interest protected. For these reasons, interception of communications, as well as all SIM's, by rule are applied only under strict conditions, precisely prescribed legal procedures in the context of the specific circumstances of each particular case. In this regard, the European Court of Human Rights in its decisions (Malone v. United Kingdom, Kruslin v. France, Huvig v. France, Kopp v. Switzerland) underlines that wiretapping and other forms of interception of communications represents serious interference with private life and should therefore be based on law that is particularly precise. The precision of the law means clear rules especially in relation to the offenses and the length of duration of wiretapping. The rules must necessarily be grounded, unassailable, without ambiguities terminology that would make them contradictory. Only in this way it will ensure minimal invasion of the rights of individuals and will eliminate opportunities for abuse.

As recommended by the Council of Europe, the application of all SIM should especially be observed:<sup>8</sup> 1. The principle of proportionality between the aim to be achieved

<sup>6</sup> Шредер, Ф.К., Казнено-процесно право, APC  
Лamina, Скопје, 2010, p. 83-88

<sup>7</sup> Матовски, Н., Лажетик Бужаровска, Г., Калајчиев, Г.,  
Казнено-процесно право, АКАДЕМИК, Скопје, 2011,  
p. 263

<sup>8</sup> Recommendation Rec (2005) 10 of the the Committee of  
Ministers to member states on „special investigation  
techniques“ in relation to serious crimes including acts of  
terrorism, adopted by the Committee of Ministers on 20  
April 2005

and the means used for this purpose, as well as between the general interests of the community and the protection of rights to individuals; 2. The principle of subsidiarity which assumes gradation in the SIM application, from less to more intrusive. Council of Europe encourages the member states to adopt legislation allowing or expansion of the use of special investigative measures,<sup>9</sup> but emphasizes that no matter how serious is the situation in society in terms of crime, each response crime must be a confirmation of the basic principles of democratic states through the rule of law and respect for human rights.<sup>10</sup> This principle takes into account the fact that some of the special investigative measures, particularly the interception of communications, have extremely invasive nature and their application should be *ultima ratio*.

### Conclusion

The right to secrecy of communications assumes respect for privacy in communication between individuals, regardless of the manner and means used in the communication process. The secrecy of the communication is protected in the legal systems of almost all countries in the world. With the relevant international documents on human rights, the recommendations of the Council of Europe and the case law, especially the European Court of Human Rights, standards for effective protection and respect this right were created.

In circumstances in which the modern society functions, respect of the secrecy of communications faced serious challenges. These challenges imply not only legal, but also social and ethical repercussions in the treatment of the right to secrecy of communications. Among them, the most significant impact is the expansion of sophisticated communication technologies and their almost unlimited opportunities for monitoring and recording voice realized and written communications. Also, challenge for respect of this right is the application of special investigative measures to

deal with national and global security threats. As a special investigative measure, interception of communications enters the deepest privacy, without the possibility of selection in content and in the personal sense. International standards for the application of this and other SIM measures require strict legal requirements and determination of the value of society interest which should be protected. Only in this way it can ensure minimal invasion of the rights of individuals and eliminate opportunities for abuse. However, despite the accepted international standards, it seems that under the veil of the need for protection of national and public security; the wiretapping as a cover for breaking into the privacy of individuals is actually legalized.

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<sup>9</sup> Recommendation Rec (2001) 11 of the the Committee of Ministers to member states concerning guiding principles of the fight against organised crime, adopted by the Committee of Ministers on 19 September 2001

<sup>10</sup> Recommendation Rec (1996) 8 on Europe in a time of change: crime policy and criminal law, adopted by the Committee of Ministers on 5 September 1996

## LEGAL AND INSTITUTIONAL FRAMEWORK OF MEDIATION IN REPUBLIC OF MACEDONIA

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**Abstract:** Mediation as an alternative dispute resolution enables faster, more efficient and less costly resolution of disputes in relation to the proceedings. Its operation is based on the following principles: voluntary, equality of the parties, neutrality of the mediator, exclusion of the public, efficiency of the procedure, confidentiality of information, fairness. In Macedonia the mediation as an alternative dispute resolution was introduced by the Law on Mediation in 2006. However, besides this law, the resolution of disputes by mediation is regulated by other special laws such as the Family Law Act, Consumer Law, the Juvenile Justice, Law for the peaceful resolution of labor disputes, etc.. For effective functioning of the mediation, except legal regulation of mediation, and established appropriate institutional framework is an important link for a successful mediation. The institutional framework of mediation includes: Ministry of Justice - Sector for Mediation, Board for Mediation, the Mediators Chamber of Macedonia and mediator. All the above institutions have proper function in the system of mediation and their jurisdiction is governed normative-legal. The legal and institutional framework actually consists of mediation system in the country and represent a whole.

**Key words:** *Law on mediation, Board for mediation, the Mediators Chamber of Republic of Macedonia, mediators.*

### Introduction

Citizens in modern societies are faced with the problem of access to justice and trial within reasonable time. Access to justice and legal protection is considered a fundamental human right, guaranteed by Article 6 of the European Convention on Human Rights. Result, Alternative dispute resolution (ADR) is

an integral part of the legislative and policy reforms in all European countries and can lead to faster, cheaper and more efficient resolution of disputes. The problem of access to justice in modern legal systems derived from three primary factors: 1) the number of court cases in all countries is constantly increasing and the courts are overloaded with cases; 2) the procedures are complex and long-lasting; 3) court costs in the proceedings are exceptionally high. Result, ADR is an integral part of the legislative and policy reforms in all European countries and in the Republic of Macedonia and that leads to faster, cheaper and more efficient resolution of disputes.<sup>1</sup>

Mediation is an alternative way of resolving disputes (out of court dispute resolution) and means negotiating of the conflicting parties in the presence of a mediator, as a neutral and impartial third person who has no right to rule, but rather helps the parties in the dispute themselves to reach an acceptable agreement. By its nature, the institute mediation in countries with a long tradition and more experience, is a procedure in which governs the principle of the autonomy of the parties.<sup>2</sup>

The Judicial resolution of disputes, generally is characterized by an adversarial proceeding, impersonality, the lawyer control and the rule of centralized authoritarian orders,

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<sup>1</sup> Green paper on alternative dispute resolution in civil and commercial law, Commission of European Community, COM 2002.

<sup>2</sup> Manojlovic, Ognenka, Flow of mediation procedure, The Faculty of Law of University of Zagreb, Zagreb, 2005, p. 13

while *mediation* is based on the values of modern society, such as respect for the dignity of the person, fairness, justice, reciprocity, individual participation, consent and control of the parties in resolving of their conflicts and others.

The principles on which rests the mediation are: voluntary, confidentiality, informality, equality, the mediator is independent, neutral and impartial.

In this paper we will look at the legal framework of mediation arranged in a number of international legal instruments, and we will also focus on the legal framework in Republic of Macedonia. However, for mediation to function effectively there must be and institutions that will ensure for its development.

## 1. Legal framework of mediation in the Republic of Macedonia

The legal framework for alternative dispute resolution, in that context mediation is consists of Constitution, the Law on Mediation<sup>3</sup>, Civil Procedure Law<sup>4</sup>, Law on Consumer Protection<sup>5</sup>, Family Law<sup>6</sup>, Juvenile Justice<sup>7</sup>, Law on international commercial arbitration<sup>8</sup>, and the Law on peaceful resolution of labor disputes<sup>9</sup>.

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<sup>3</sup> Law on Mediation is a separate special law for out of court dispute resolution under the mediation. The law was enacted in 2006 and was published in the "Official Gazette of RM" no.60 / 06. Law on Mediation is revised and amended by the Law revising and amending the Law on Mediation in 2007 and 2009. Amendments of the said law are published in the "Official Gazette of RM" no. 22/2007 and no. 114/2009.

<sup>4</sup> "Official Gazette of the Republic of Macedonia", no. 79/2005; 110/2008; 83/2009; 116/2010 and 7.11.

<sup>5</sup> Law on Consumer Protection ("Official Gazette of the Republic of Macedonia ", no. 38/2004, 77/2007, 103/2008 and 24/2011).

<sup>6</sup> Official Gazette of RM no. 38/04; 33/06 and other novels.

<sup>7</sup> Official Gazette of the Republic of Macedonia no. 87/07 and 145/10;

<sup>8</sup> International Trade Law Arbitration of the Republic of Macedonia was adopted in 2006 and published in the Official Gazette. 60/2006.

<sup>9</sup> Law for the peaceful resolution of labor disputes has been published in the "Official Gazette of RM" no. 11/2012 of 24.1. In 2012.

## 1.1. Constitution of the Republic of Macedonia

Constitution of the Republic of Macedonia as the highest general legal act in a state is not explicitly talking about alternative ways of resolving disputes, but they implicitly derived from the constitutional right of citizens which guarantees legal protection (Amendment XXI).<sup>10</sup>Hence, the Constitution of the Republic of Macedonia undoubtedly constitutes an important source which guarantees the legal protection of citizens in the resolution of all disputes and conflicts arising in connection with the exercise of the fundamental rights and freedoms of man and citizen. Constitution of the Republic of Macedonia under Article 9 to Article 60 of the normative part establishes and guarantees fundamental human rights and freedoms. The realization of human rights and freedom, alternative ways of resolving conflicts and other disputes, constitute very important forms to achieve them. Each country that pretends to be legitimate as a legal state should establish the legal protection. Pursuant to the provisions of the Constitution, the term legal protection, its referred of the legal remedies and legal mechanisms applied in the process of realization of human rights and freedoms. In this sense, the term legal remedies, refers to the various legal means and legal remedies that apply in specific cases and specific situations, which will depend on the particular law and the particular freedom.

## 1.2. Law on mediation

Basic law that legally regulates mediation in Republic of Macedonia is Law on Mediation<sup>11</sup> which is passed on 9.05.2006, and entered into force on 1.11.2006. The law was subsequently modified several times<sup>12</sup>,

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<sup>10</sup> Official Gazette of RM, No.107 / 05. With Amendment XXI is replaced Article 15 of the Constitution of the Republic of Macedonia with whom .... is guarantee the right of appeal or other legal protections.

<sup>11</sup> Official Gazette of the Republic of Macedonia ", no. 60/2006; 22/2007 and 114/2009.

<sup>12</sup> Law for Amending the Law on Mediation ("Official Gazette of the Republic of Macedonia ", no. 22/2007) and

including the intervention of the Constitutional Court<sup>13</sup>. In the adoption and amendment of the Law on Mediation, consideration had been on the achieving compliance with Directive 2008/52 / EC of the European Parliament and of the Council of 21 May 2008, for mediation in civil and commercial disputes. The introduction of the Law on Mediation, led to amendments to the Law on Civil Procedure<sup>14</sup>. Because of the dysfunction of the Law on Mediation was approached for adoption of a new law. The new Law on Mediation<sup>15</sup> was adopted in December 2013, which entered into force on 31.12.2013.

Law defines (Article 2) that "*mediation*" means any mediation, regardless of its name, the resolution of dispute in the mediation process in which the parties to the dispute are allow it to resolve the dispute by negotiation, peacefully using one or more licensed mediators (here and after mediator) to achieve mutually acceptable solution expressed in the form of a written agreement. This applies particularly in proprietary, family, work, trading, consumer, insurance disputes, disputes in the field of education, environmental protection, disputes about discrimination, as other contentious relationship where mediation fits the nature of contentious relations can help to resolve them. Also, the provisions of this Law shall apply in criminal cases, unless in a special law is not excluded its application (Article 1, paragraph 3). The law also defines the principles of mediation, including: *voluntary, equality, neutrality, confidentiality, the excluding the public from mediation, equality of the parties, (un)availability of information on mediation in other procedures, efficiency and fairness.*<sup>16</sup> The law further

stipulates the procedure of mediation regulated by Articles 15 to 26.

Something new in the Law represents support of the mediation from the Government of Republic of Macedonia through the adoption of a program for development of mediation, in which are determined the measures and resources that provide support to mediation. The program is made for at least four years. Special programs to support mediation also adopted Judicial Council of the Republic of Macedonia and the Supreme Court of the Republic of Macedonia (article. 27, paragraph 1 and 2). According to Art.28 for development of mediation The State is doing subsidizing of part of the cost of mediation under, legally defined criteria.

The organization of mediators in the Chamber of mediators and its authorities and responsibilities is defined by Law (Article 32 to 45). The law contains also the rules of the mediation procedure, which will be adequately considered in this paper. In Chapter VII of the Act are stipulates the conditions for practicing mediator and arbitration and mediation work (article. 46 to 55), mediation exam, The Program for taking the mediator exam, taking the exam, while in Chapter VIII relates to security, monitoring and evaluation of the quality of the work of mediation through a special Board for that purpose. Composition, mandate, scope of work, organization, work and funds for the Committee are governed by Articles 56 to 61.

Based on the Law on Mediation (Official Gazette of RM no. 60/06) are adopted some bylaws, with whom its completed the general legal framework for mediation. They primarily refer to issues related to the profession of mediator and include:

- 1) Pricelist for reward and compensation of the costs of mediators;<sup>17</sup>
- 2) Rulebook for the manner and procedure of conducting training of mediators;<sup>18</sup>
- 3) Pricelist for reward and compensation of the costs of mediators;<sup>19</sup>

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the Law on Amending the Law on Mediation ("Official Gazette of the Republic of Macedonia ", no. 114/2009).

<sup>13</sup> Decisions of the Constitutional Court of the Republic of Macedonia: U. No.. 117/2006 from 1.11.2006, published in the "Official Gazette of the Republic of Macedonia ", no. 119/2006 and U. No.. 34/2007 of 06.06.2007, published in the "Official Gazette of the Republic of Macedonia ", no. 77/2007.

<sup>14</sup> Law amending the Law on Civil Procedure ("Official Gazette of the Republic of Macedonia ", No. 116/2008).

<sup>15</sup> Official Gazette of the Republic of Macedonia No. 188/13.

<sup>16</sup> The principles of mediation is regulated in Articles 6 to 14.

<sup>17</sup> Official Gazette of RM No 12/11;

<sup>18</sup> Official Gazette of RM No 12/11;

4) Rulebook for the training program for mediators and form for finished training for mediator;<sup>20</sup>

### **1.3. Law of Civil Procedure**

An integral part of the legal framework for the mediation also is the Code of Civil Procedure (Civil Procedure). In Article 272, paragraph 2, imposes an obligation on the court in the cases in which mediation is allowed, along with an invitation to the preparatory hearing, to the parties to be submitted written indication that the dispute can be resolved through mediation. Also, in the invitation to the parties is submitted a request to state whether they have decided to settle the dispute through mediation (Article 272, paragraph 4). If the parties agree to resolve the dispute through mediation, the court will make a decision to discontinue the procedure. Civil Procedure also, regulates the issue of the court settlement, to which can be reach through mediation. The law gives the possibility the agreement reached through mediation, when litigation is initiated and stopped for mediation to be considered for a court settlement (Article 308 in relation to Article 307, Civil Procedure). The law, also, provides an opportunity before filing the lawsuit, the party that filed the lawsuit to submit a proposal to the other party for settlement (Article 310, Civil Procedure).

### **1.4. Law on Consumer Protection**

The Law on Mediation and the Law on consumer protection are containing provisions that regulate the issues related to the resolution of consumer disputes arising between buyer and seller (merchant). In Article 1, paragraph 2 of the Law on Mediation, predicts mediation of consumer disputes. Thus, in accordance with the Law on the protection of consumers, Consumer Associations (in accordance with Article 128, paragraph 1, line 8) are entitled to mediate between consumers and traders of goods and providers of services, in order to

resolve disputes. Such practice exists. The Consumers Organization of Macedonia, as an umbrella organization, through its advisory bureaus within the counseling which are performed in certain way also is doing mediation in resolving disputes. In 2011, OPM has achieved 3.330 counseling.

But even if there was no such provision, as the Law on Consumer Protection provides subsidiary application of the Law of Obligations (hereinafter ZOO)<sup>21</sup> in consumer contracts, and accordingly and its principle of peaceful settlement of disputes makes consumer disputes suitable for mediation. Namely, in accordance with Article 2, paragraph 2 of the Law on Consumer Protection, when the law is not otherwise, contracting and other Contracts Act of supply of goods and services shall apply the provisions of the Law of Obligations. In accordance with Article 13 of ZOO, participants in the obligation relations will endeavor to resolve disputes with compliance, mediation or other peaceful means. Hence, mediation as a way of peacefully resolving disputes out can be a mechanism to resolve consumer disputes.

### **1.5. Mediating family disputes in Macedonia**

Given the specifics of marital and parental disputes, in many states, mediation is considered for more appropriate way to resolve family conflicts, as opposed to the standard court procedure.

When it comes to mediation in family disputes, the autonomy of the parties allows the spouses and parents to find a solution that best suits their needs, especially the needs of their children. Resolving marital and family disputes through mediation is much more appropriate than their resolution through litigation. The main reason is the nature of the proceedings, where there are conflicting sides that they entrust their conflict for court to resolve, in which one side is always defeated and the other

<sup>19</sup> Official Gazette of RM No 46/08;

<sup>20</sup> Official Gazette of RM No 78/06.

<sup>21</sup> Law of Obligations ("Official Gazette of the Republic of Macedonia", No. 18/2001, 4/2002, 5/2003, 84/2008, 81/2009 and 161/2009).

winner.<sup>22</sup> Practice shows that if the court resolves family disputes, especially disputes between parents, their relationship will be permanently impaired, the conflict between them would not be resolved to the satisfaction of both parents, but will continue to respect the exercise of parental rights and responsibilities. This situation have an extremely negative affect on the children, because they have become "*weapon in the conflict between their parents.*" Despite the involvement of the court in resolving family disputes, mediation provides a collaborative agreement between the parents, and better application of the principle of protection of the rights and interests of the child. Except for keeping and raising children, mediation provides a more flexible approach than litigation to resolve the financial and property issues, especially after the divorce. In this regard, the parties can reach better solutions that suit their specific needs, and provide a deal for the division of joint property, alimony, particularly agreements to preserve the home as a continuous residence of the children, instead selling.

#### **1.6. The Mediation in Juvenile Justice in the Republic of Macedonia**

When a juvenile will appear in the role of a perpetrator of a crime, the Law on Juvenile Justice enable conducting of the mediation procedure. Mediation is conducted in accordance with the provisions of the Law on mediation, but because it has specific penalty area, certain aspects of dispute resolution is regulated by the Law on Juvenile Justice. The mediation procedure in *the Law on Juvenile Justice* is contained in Chapter XII (artc.72-78). Mediation in juvenile justice is primarily focused on the future of the juvenile, and not on his sanctions and isolation. In other words, mediation gives a new chance in life for social integration and a new start of the minor. In the process of mediation with minors main actors are the children and the parents.

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<sup>22</sup> Dr. D. Micković, Mediation in family disputes in the Republic of Macedonia, The dispute resolved - yes, with mediation. - Skopje: Institute for European Politics (EPI), Skopje, 2013th

**Referral to mediation.** Pursuant to the provisions of the Law on Juvenile Justice, Attorney General and the juvenile judge can assess whether a particular case there are conditions parties to be referred to the mediation. Because mediation is designed for lighter offenses, the parties may be referred to mediation by an application for action which by law is defined as a criminal offense and punishable with imprisonment of up to five years, when for this type of crime a minor is on trial.

In order to start the procedure there must be consent of the involved parties. The consent is given in writing to the prosecutor or the juvenile court within three days from the date of the proposed initiating a mediation procedure. If within the specified period the parties do not submit written consent is considered that the proposal for mediation is not accepted.

In cases where litigation is initiated, and the Public Prosecutor did not instructed the parties to mediation, then the referral to mediation is conducted by a juvenile court, with the prior written consent of the juvenile and his attorney, the counsel and the injured until the main hearing by interrupting the procedure with a decision.

By achieving the consent of the parties to initiate a mediation procedure, then approaches amicable determination of a mediator from the list of mediators in the court for minors. For the common agreement on the selected mediator, the parties shall inform the Public prosecutor or the juvenile court. If the parties do not agree on a mediator, the prosecutor, or the court shall, within three days to appoint a mediator from the list of mediators and notify the parties.

With the act of choosing a mediator can begin the process of mediation, but before it start, the mediator shall inform the parties to the rules, principles and procedural costs. The mediator, in agreement with the parties will determine the timing for mediation, and the presence of the parties is required<sup>23</sup>. The communication with the parties can be together

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<sup>23</sup> Art. 76 paragraph 1 and 2 of ZZMP



or separately, whereby the information that the mediator receives from any party to the proceedings, may disclose them to the other party, except those for which a party shall determine to be confidential.<sup>24</sup> The parties and the mediator unless otherwise agreed may at any time during the proceedings amount their proposals for the agreement that would resolve the dispute.<sup>25</sup>

The deadline for completion of the mediation procedure is up to maximum 45 days from the submission of a written agreement with the competent authority. If the this period is mediation is not completed, the case is returned to the public prosecutor or the trial continues where stopped.<sup>26</sup>

## **2. Institutional framework of mediation in Republic of Macedonia**

### **2.1. Ministry of Justice**

The Ministry of Justice also has been responsible for the efficient functioning and development of mediation. The ministry also supervises the work of mediators. Therefore, within this ministry is formed Department ie Division of Supervision of mediators.

Monitoring Unit of the work of the mediators perform the following tasks: preparation of proposals for the adoption of laws, draft laws and proposal on laws and other regulations and general acts in the field of mediators; preparation of reports, opinions, analysis, reviews, information and other materials relating to the work of mediators; preparation of a Program for training of mediators; supervising the work of mediators ex officio or upon objection by interested persons; supervising the work of the Chamber of mediators; keeping records of persons who completed training for mediators and others.<sup>27</sup>

### **2.2. Board for providing, monitoring and evaluating the quality of the work of mediation**

With the new Law on Mediation<sup>28</sup> is introduced the institution Board for providing, monitor and evaluate the quality of the work of mediation, whose main task is to monitor the quality of work of mediation.<sup>29</sup> The Board has ten members appointed by the Government of Republic of Macedonia on the proposal of authorized bodies.<sup>30</sup> The term of the members of the Board is four years and a person cannot be appointed for more than twice in succession.

Based on the principle of independence and expertise, the Board shall: determines whether the conditions for issuance of a certificate of completion of finished training for mediators; forms the basis of questions for the exam for mediators; sets, examinations and how the methods of examination of mediators, organizing and conducting the examination and issue certificates for passing the exam; issued licenses for mediators and trainers of mediators; keep a register of trained mediators, trainers of mediators, determines the methodology and manner of monitoring and evaluating the quality of the work of mediators, trainers of mediators, and implementation of accredited training programs for mediators, monitors and evaluates the quality of the work mediators, trainers of mediators, in implementation of accredited training programs for mediators and based on the results of periodic evaluation decisions for extension or revocation of licenses or credentials; reviews and decides on complaints from the operation of trainers in mediation, or the implementation of training

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<sup>28</sup> Official Gazette of RM no. 188 of 31.12.2013.

<sup>29</sup> Article 56 of the Law on Mediation

<sup>30</sup> According to Article 56 of the Law on Mediation, as authorized bodies are determined: Chamber of Mediators, the Judicial Council of the Republic of Macedonia, the Macedonian Bar Association, Inter-University Conference, Chamber of psychologists, Ministry of Justice, Ministry of Labor and Social Policy, Ministry of economy, Chambers of Commerce and the Association of Consumers of RM. All the above organizations and institutions proposed by one member.

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<sup>24</sup> Ibid. Art. 76

<sup>25</sup> Ibid. Art. 76

<sup>26</sup> Article 74 paragraph 1 of the Law on Juvenile Justice (Official Gazette of RM no. 87/07, No.103 / 08 and 161/08)

<sup>27</sup> [www.mp.gov.mk](http://www.mp.gov.mk), open on day 30.08.2014

programs for mediation and perform other duties prescribed by law.

Funds for the Committee are provided from the Budget of the Republic of Macedonia and from their own revenues.

### **2.3. Mediator**

Mediation in Macedonia is regulated profession. The system of organization of the profession is set by the Law on Mediation. In accordance with Article 46 of the Law on Mediation, a mediator can be any legal capable person who holds a license to perform arbitration and mediation work, and mediator license issued to a person who will pass the exam to check the theoretical knowledge and practical skills of mediation (in hereinafter exam mediators) to the Board for ensuring, monitoring and evaluating the quality of the work of mediation (hereinafter the Board) and will present a contract for liability insurance for damages pursuant to Article 24 paragraph (4) of this Act . License issued is valid for five years and the same may be extended or subtracted depending on the results of the evaluation of the quality of the work of the mediator.

The exam mediator can be taken by persons who have submitted to the Board for examination along with proof of:

a) University degree VII/I or 300 credits according to the European Credit Transfer System (ECTS) in the Republic of Macedonia or solution for proper recognition of higher education qualifications obtained abroad issued by the Ministry of Education and Science;

b) training completed by an accredited training program for mediators of at least 70 hours in Republic of Macedonia or abroad, or a decision to recognize the proper training completed abroad adopted by the Board;

c) at least three year work experience after graduation;

d) sent at least four mediation procedures implemented by the mediator issued a certificate of mediator supported with an

extract from the Register recording procedures appropriate for mediation procedures;

e) conducted psychological tests and tests of integrity issued by a licensed professional;

f) certificate of citizenship of the Republic of Macedonia;

g) at least five references from people who know the applicant professionally.

With the exam for mediator is checking knowledge and understanding of the general theory, legal regulations governing mediator activity, process and procedure of mediation and mediation practice, based on written tests, essays and reports. Person under paragraph (1) of this Article shall be obliged to reimburse the cost of the exam.

### **2.4. Chamber of Mediators**

The mediators are organized in the Chamber of mediators, which is a legal entity and is based in Skopje. Bodies of the Chamber are Chamber Assembly (which is the highest governing body made up of all mediators), President, Board of Directors, Supervisory Board and Ethics Council Chamber. Chamber (Board) maintain a Register to record the proceedings for mediation and Directory of Mediators. The Directory of registered mediators is total of 156 mediators. If their qualifications are analyzed, it should be noted that most of them are with legal education and more than half operate in the city of Skopje. The main weakness of the structure of the list of mediators is the uneven representation of regional mediators.

## **3. Conclusion**

The current legal framework for mediation in Republic of Macedonia provides a solid opportunity in more social spheres to resolve disputes by mediation.

Institutional framework, also provides a good opportunity for efficient operation and faster development of mediation. Board for

providing, monitoring and evaluating the quality of the work of mediation should soon be established and begin to work with the aim of providing, monitoring and evaluating the quality of the work of mediation.

The recruitment of new mediators, the mediators Chamber of Republic of Macedonia should take account of regional balanced representation of mediators.

Although the Law on Mediation was adopted eight years ago, a general evaluation of its use is that is far from accomplished its primary goal, which is to facilitate out of court resolution of disputes, they to be resolved in less time and for them to not be allocated more funding. According to the survey "Perception and attitudes of the mediators for mediation in Republic of Macedonia", the total number of mediations conducted with interviewed mediators was only 58, and 1/3 of the total number of mediators is not established contact with a client. Main reasons for the weak effects of the law, lie in the lack of tradition in our environment for mediation, lack of awareness of the professional and the general public about the benefits of mediation, the tendency of citizens "to seek justice in court" lack of coordination of all actors in the mediation process (Chamber of Mediators, the Ministry of Justice, courts, mediators) and others. Increasing the mediators knowledge of justice. As noted, the Directive on mediation requires the mediator competence. Only good knowledge of the specifics of the resolution will allow the mediator to guide the parties to find an appropriate solution to the dispute. In this regard, should be provided specialized training of mediators and that, moreover, continued training will set as a condition for keeping the status mediator;

In order to increase the use of mediation, one should bear in mind the need for *transparent work* of mediators. The current practice of not having publicly available data is not aimed at gaining public trust.

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## LEGAL REGULATION OF THE BUYER'S OBLIGATION FOR PRICE PAYMENT ACCORDING TO THE VIENNA CONVENTION ON CONTRACTS FOR THE INTERNATIONAL SALE OF GOODS WITH EMPHASIS TO ITS ORDERLINESS IN REPUBLIC OF MACEDONIA

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### Abstract

Contract of sale is a basic legal instrument of international trade and therefore has a major role not only in domestic but also in international commodity trade. The corpus rights and obligations represent the content of the sales contract. By concluding the sales contract, whether in internal or international law, each party undertakes certain obligations, but also it is acquired with certain rights. The obligations of the buyer represent one part of the contract's content of sale of goods. The subject of analysis in this paper will be the obligations of the buyer which are specified in the Contract Law of the Republic of Macedonia, as well as the buyer obligations which are listed in the United Nations Convention on Contracts for the International Sale of Goods, but mainly, we will concentrate on the obligation of the buyer to pay the price for the goods to the seller. By conducting a comparative analysis of the obligation of the buyer in the domestic and international law, we will see the position of the domestic buyer vis a vis the international – in the part of one of the obligations of the contract of sale.

**Key words:** *contract, sales, obligations, seller, buyer, price, responsibility.*

### Introduction

Obligations of the buyer represent one part of the content of the contract of sale of goods. Agreement for the sale of goods is a basic and the most important contract in trade with goods and has enormous significance for the economy of any country. The contract for sale is the basic document in trade - without it trade could not be imagined. It is a basic legal act on the grounds of which it is implemented the overall trade of goods in the domestic and international turnover.

Regardless of the existence of the legal regime of sales, in reality it will exist and will be realized.<sup>1</sup>

Due to the importance of the sales contract and its role, unification of rules is performed for the sale of goods. Reasons for appearance of the obligations of buyer are the fact that, as a rule, what is the right of one party to the contract for sale, it is an obligation to the other side and vice versa. It is necessary to determine the specific obligations of the buyer which are legally determined. In the first place, should be taken into account those elements which regulate the rights and obligations of the parties in the sale.

One of those elements is the legal regulation of sales in the Republic of Macedonia, and another element in this case are the international acts that regulate sales.

Commitment of all competent organs is needed for resolving disputes in which the subject of dispute represents the obligations of the buyer to adhere to the legal provisions, especially to those solutions of international law which are incorporated in the most national laws.

The obligations of the buyer arising from the sale agreement and, as previously mentioned, at the same time the obligation of the buyer is the right of the seller.

In Roman law, the buyer during the conclusion of the sale agreement has several basic obligations which are:

- To pay the price to the seller and the payment of the price has to be done in that

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<sup>1</sup> This in the context of the attitude that to remove provisions from the sale in the Contract Law of the Republic of Macedonia and to abolish all provisions from the the conventions which regulate the sale, it will exist and will be realized in the trade.

amount, time and place as the parties have determined. If the time and place of payment of the price have not been determined, the buyer's obligation should be fulfilled simultaneously with the delivery of goods (Puhan and Polenak-Akjimovska, 2001, page 276), and any delay in the payment of the price which is caused by the fault of the buyer, then the buyer will respond for the compensation of damage;

- To submit a risk of accidental slippage of the item and receive delivery of the goods at the agreed place and time.

### **1. Obligations of the buyer According to Contract Law of the Republic of Macedonia**

The obligations of the buyer are determined by the Contract Law of the Republic of Macedonia (hereinafter referred to: Contract Law) in Section 4, but we can say that the legislator has not paid enough attention to them, as it is evident from the articles that have been specified. As fundamental obligations of the buyer, Contract Law determines the payment of price and taking of the subject.

#### **1.1. Payment of the price**

One of the most important and basic obligations of the buyer is the payment of the price, in which of particular importance is the time and place determined for payment of the price. According to Contract Law the buyer is obliged to pay the price at time and place specified in the contract (Contract Law, article 504/1).

In practice, it happened that the parties do not achieve agreement with regards to the place and time of payment of the price (insignificant elements of the contract), so in that case, when there is no contractual provision, the law determines the payment by the buyer to be done in time and place where it is performed the handover or receipt of the item (so called: receive – paid).

The buyer has no obligation to pay the price before having the opportunity to check the item, but when the contract predicts payment by

handing of appropriate documents (symbolically handover), in that case the buyer cannot refuse the payment of the price for not having the opportunity to review the item, i.e. the buyer is obliged to pay the price.

In cases when the price does not have to be paid at the time of handover of the goods, then the payment is determined to be made in the residence or seat of the seller. Parties to the contract may agree or reach an agreement for sale on credit, whereas in this case the buyer except the price has an obligation to pay an interest as well, unless in a particular case is otherwise agreed.

In the presentation that follows, examples of the legal practice of the Supreme Court of the Republic of Macedonia will be given:

*It refers to the rights and obligations of the parties to the contract of sale are concluded when the agreement to standstill the payment secured with acceptable orders.*

*The Supreme Court noted that - "When an agreement has been concluded in which the parties have agreed payment upon sale agreement to stand, and the fulfillment of obligation which is secured with acceptable orders that have not been realized because of conclusion of the agreement does not mean that the plaintiff (seller) gave up from the right to demand fulfillment of the obligation from the defendant (buyer), nor that the defendant shall be released from the obligation to recompense the purchase price." (Cases from the Macedonian case law of the Supreme Court of the Republic of Macedonia)<sup>2</sup>.*

There is a specific payment of the price in case of successive deliveries where the buyer is obliged to pay the price for each delivery at the time of its acquisition, except when something else arises from the circumstances of the work or something else is agreed by the parties. The buyer can give down payment to the seller, when it comes to contract with successive deliveries and then, the first deliveries are paid of that advance payment (Contract Law, Article 506/2).

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Retrieved from:  
[http://www.vrhoven.sud.mk/VSUD/MatraVSUD.nsf/Dis\\_PP.xsp?documentId=4F5D2BA78AD388F6C1257B3C0034E358](http://www.vrhoven.sud.mk/VSUD/MatraVSUD.nsf/Dis_PP.xsp?documentId=4F5D2BA78AD388F6C1257B3C0034E358).

The time for payment of goods as an obligation of the buyer is usually determined in the contract as one of the insignificant elements. Payment can be made immediately in cash before delivery or payment after the receipt of delivery. The buyer can pay the price after the expiration of the agreed term, if the goods are replaced or reduced because of the existence of additional defects.

If in the sales contract the price should be paid per call, it marks that should be paid before the delivery of the goods. In the contract can be provided clause payment upon receipt of invoices, which means to pay regardless of whether the delivery is made, or clause payment after open letter of credit or payment with redemption of commodity papers.

We know that in trade the agreements are often concluded orally, and in doing so the bill known as the invoice is a unique written document and therefore has significant probative force (Vasilevich, 2006). The importance of this proof can be seen in the possibility if the buyer does not pay the invoice within the agreed timeframe, based on it the court can submit a proposal to perform debt as credible proof.

There is a very important provision in the Contract Law (Article 481), which refers to a particular obligation which arises for the buyer, and according that provision is determined when the contract for sale of the economy, the seller who sold items that are determined by genus has given larger amounts from what had been agreed by the buyer, and if buyer does not within a reasonable time say that rejects the excess, it is deemed that the buyer has received excess, and therefore he is obligated to pay for that, at a price that was previously agreed.

The buyer will be obligated to pay the price of the item in installments or in certain time intervals, when with the contract of the sale of movable property with repayment of the price in installments that is determined, but in this case, the buyer can be only individual.

The delay of buyer to pay the price is basis for debt delay with all the consequences that arise from it (Ilieski, 2008, page 152).

## **2. Obligations of the buyer according to the United Nations Convention for the International Sale of Goods from Vienna**

The obligations of the buyer according to the United Nations Convention for the International Sale of Goods from Vienna - *CISG* (hereinafter referred to: the Vienna Convention) (Article 53-65) are reduced or summarized into two basic obligations, such as: the obligation to pay the price and the obligation to take delivery of the goods. In this regard, there is no difference between the legal obligations of the buyer between Contract Law of the Republic of Macedonia and the Vienna Convention, which by automatism has been ratified from Republic of Macedonia, as taken from Federal Federative Republic of Yugoslavia (SFRY).

Article 53 of the Vienna Convention describes the general responsibility of the buyer in international sales. Here we can conclude that is emphasized the primacy of the contract between the parties in defining of their responsibilities (Henry Deeb, page 1). According to the Vienna Convention, and according to every law that regulates the sale of goods, it is emphasized that the primary obligations of the buyer are the obligations arising from the agreement with the other obligations arising from the substantive law.

### **2.1. Payment of the price**

The main responsibility of the buyer according to the Vienna Convention's obligation is to pay the price, as it agreed in the contract or as stipulated in the Vienna Convention. The obligation to pay the price (the Vienna Convention, Articles 54-59), which has a buyer implies taking measures and fulfillment of the formalities that is provided by the contract or with the appropriate laws and regulations, in order to make payment. The measures that the buyer is obliged to take can relate to provide a letter of credit (Contract Law, Article 1114) and the price should be in accordance with the relevant laws, especially regarding the rules of the currency exchange. The parties may determine also currency of payment.

Article 54 of the Vienna Convention provides that the obligation of the buyer to pay the agreed price extends beyond of owed

money. The obligation also includes all the steps necessary to ensure that the payment will be made. This is evident by the following decision of the arbitral tribunal:

*"The tribunal said that, according to Art. 54 of the CISG, the buyer's obligation to pay the price of goods includes taking such measures and fulfilling such formalities that may be required to enable the payment of the price."*<sup>3</sup>

According to one practice case, it is pointed out that in the following example, all costs that are necessary in order to make payment shall be covered by the buyer:

*"The court held that the buyer could not reject the cost of paying with a check of the purchase price, because those costs have to be covered by the buyer."*<sup>4</sup>

We can make many conclusions based on practice cases, for example, failure to obtain a letter of credit required under the contract, qualifies as an infringement of Article 54 of the Vienna Convention.

*"The court held that the refusal to establish timely a letter of credit was fundamental infringement within the meaning of Article 25 and Article 64 (1) (a) of the CISG, because failure to establish a letter of credit in the case is failure by the buyer to fulfill his "obligation to pay the price "(Article 54, CISG)."*<sup>5</sup>

Several cases have also focused on the issue which currency for payment to be used for payment of the price. These cases generalize that in the absence of a separate agreement for the currency of payment, payment should be made in the currency used in the seat of the seller or the place where the payment should be made. According to the practice:

*"Court, in 1990 when an Italian seller and a German buyer concluded a contract for the sale of wine, interpret Articles 53 and 54 of the CISG in order to show that the parties may determine by agreement the payment currency. If it was not specified in the contract, then the price had to be paid in the currency of the place of payment."*<sup>6</sup>

In one particular case practice the court concluded that the currency of payment should be determined by the law governing the contract in the absence of the Convention.<sup>7</sup>

The buyer must pay the price that is specified in the contract, either silently or pronounced way. In terms of price as an important element of the agreement for the international sale of goods, the Vienna Convention contains two contradictory provisions contained in article 14 and article 55. Namely, article 14.1 of the Vienna Convention says that the proposal for concluding a contract (offer) is enough explicitly defined if silently or pronounced determines the price, or is enough to contain elements for its determination. But, article 55 of the Convention stipulates other rules that would apply if the contract price is not determined, neither it has provisions on the basis that it could be determined, then the Convention provides that it shall be considered that parties silently agreed on the price at the time of conclusion of the contract regularly charging fees in the respective branch of such goods, which were sold under similar circumstances. This shows that on the basis of compromise, is determined that in the absence of a precise and fixed price, the parties implicitly bound the price which is usually and regularly charging fees at the time of concluding the contract for such goods.

The judicial and arbitral decisions in many cases generally point out that the price must be determined in accordance with article 55 of the Vienna Convention if the contract does not

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<sup>3</sup>Source:<http://www.unilex.info/case.cfm?pid=1&do=case&id=216&step=Abstract>; day: 17.10.1995; state: Russian Federation; number: 12 JI 1992[Abstract: CLOUT case 142]; court: Tribunal of Int'l Commercial Arbitration at the Russian Federation Chamber of Commerce; parties: Unknown.

<sup>4</sup>Source:<http://www.unilex.info/case.cfm?pid=1&do=case&id=193&step=Abstract>; day: 17.04.1996; state: Germany; number: 45 (19) O 80/94; court: Landgericht Duisburg; parties: Unknown.

<sup>5</sup>Source:<http://www.unilex.info/case.cfm?pid=1&do=case&id=472&step=Abstract>; day: 17.11.2000; state: Australia; number: Civil Jurisdiction No. 10680 of 1996; court: Supreme Court of Queensland; parties: Downs Investments Pty Ltd v Perjawa Steel SDN BHD.

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<sup>6</sup>Source:<http://www.unilex.info/case.cfm?pid=1&do=case&id=46&step=Abstract>; day: 24.01.1994; state: Germany; number: 2 U 7418/92; court: Kammergericht Berlin; parties: Unknown.

<sup>7</sup>Source:<http://www.unilex.info/case.cfm?pid=1&do=case&id=369&step=Abstract>; day: 30.06.1998; state: Switzerland; number: C1-98-9; court: Kantonsgericht Kanton Wallis; parties: Unknown.

have a price or there is no basis for determining the price.

If the price is determined according to the weight of the goods, then under Article 56 of the Vienna Convention, in case of doubt in determining the price should use the net weight of the goods. We believe that with this article shall be positioned the standard to determine the price, if it be determined according to weight of the goods, and thereby in the contract is not determined how to be determined weight. This standard will be applied in the case where with the contract is not determined whether the goods are to be measured at net or in a gross weight.

Articles 57 and 58 of the Vienna Convention regulate the place and time of payment of the price. This article shall apply only if the agreement nor explicitly or implicitly has not checked place of delivery. Place of payment is the place where a buyer under the agreement, according to commercial usage or according to regulations should make payment of the purchase price at the time predicted for his obligation.

It is important that the place of payment is more important in international than in the domestic market. This is because, the place of payment is related with the court jurisdiction to sue the buyer, according to the place of payment is determined and the procedure for payment, and also, are interpreted various expressions that have varying significance in terms of time payment and the currency of payment.

This means that, when the Macedonian trade company will sell goods to Russian companies in Macedonian denars without closer to being certain that currency, and payment in the case should be made in Russia, then the payment would have to be performed in the Russian currency and not in Macedonian denars. The buyer is obliged to pay the price in the place provided with the contract, in the absence of such a contractual provision, the payment must be made at the seat of the seller or in a the place of delivery (in case when the payment should be made in the moment of handover of goods or documents).

Considering that obligation for payment is an obligation of a buyer, the burden of proof of

payment is the buyer. This is evident by the following example:

*"The Court found that ... after a buyer will perform all formalities regarding payment of the price he must bear the cost in case if he needs to prove that the check or transaction is done."*<sup>8</sup>

Several court decisions have concluded that in case of termination of contract, the Vienna Convention does not regulate the issue of restitution, so the parties have to rely on national legislation for terminated contract. If in the meantime, after the conclusion of the contract, there is a change of the seat of the seller, then the increased costs associated with the payment as a result of changing the seat, are falling down to the seller. This is an exception to the rule that the risk and cost of lost or deferred payment fee is usually and shall be covered by a buyer. Article 58 of the Vienna Convention provides that the time for payment is mainly determined by the contract and this Article shall regulate due date of obligation for payment the price. There are examples from practice confirms that the time for payment of the price is determined in the contract between the parties as one of the insignificant items.<sup>9</sup> Namely, if in the contract is not determined time when the buyer should perform his duty, then he is obliged to pay the price when the seller shall make available was goods or documents based on which the buyer may dispose of the goods.

It is possible the seller to set up a condition in cases where with the contract is envisaged transport of goods, according to which the goods or documents based on which he can dispose of goods do not be delivered to a buyer until he has not paid the price (the Vienna Convention, article 58/2). This goes in favor of a buyer which on the other hand, will not be obliged to pay the price to the seller until it handed over the goods or documents based on which he can dispose of the goods.

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<sup>8</sup>Source: <http://www.unilex.info/case.cfm?pid=1&do=case&id=252&step=Abstract>; day: 09.07.1997; state: Germany; number: 7 U 2070/97; court: Oberlandesgericht München; parties: Unknown.

<sup>9</sup>Source: <http://www.unilex.info/case.cfm?pid=1&do=case&id=87&step=Abstract>; day: 08.02.1993; state: Germany; number: 9 O 85/92; court: Landgericht Verden; parties: Unknown.



Buyer shall have no obligation to pay the price prior to have the opportunity to examine the goods (the Vienna Convention, article 58/3), with the exception when the way the delivery is made or the manner of payment (for example, when the payment is executed at the time of delivery of documents for goods - a symbolic handover of the goods) for which the parties agreed, exclude the possibility of review.

The right which the seller has to keep the goods or documents until payment of the price is not in accordance with the right which the buyer has to examine the goods. Buyer may make partial payment of the price or payment of the price prior to the date of maturity of the obligation, only if it is determined in the contract (Uniform Sales Law).

When the payment of the purchase price is agreed in advance, then we can say that it is buying, where the buyer has to pay the price before the goods are being delivered by the seller. During this sale, the most commonly used clauses are: payment per call, payment upon receipt of invoice, delivery after opening the letter of credit and etc.

According to the Vienna Convention (article 59), the buyer is obliged to pay the price of those which are determined by the contract (seller, carrier etc.), without having the need to ask the seller some requirements or formalities.

This provision is provided to avoid the European legal system, which provides a formal request by the seller (Henry Deeb, page 9). Most cases of practice have concluded this provision<sup>10</sup>.

In many of the previous examples is stated that the buyer failing to fulfill the conditions under the Vienna Convention for the payment of the price gives the seller the right to demand payment or interest under the provisions of article 78 of the Convention.

Regarding the manner of payment of the price, ie manner of performance of obligation of the buyer, it is assumed that it should be specified in the contract of sale between the

parties, and the lack of it will apply trade customs. Typically, the buyer is obliged to pay the agreed price at once and in cash or by transfer order, of course, if something else is not agreed.

In international trade often, instead of paying for delivery is applied payment with papers. In this mode of payment, the buyer is obliged to fulfill its obligation to pay the price when will become available the documents which represent the goods. In practice there are often two ways of such payment, and that payment is with document and documentary letter of credit (Nikolovski, 2005, page 150-151). Payment with documents does not fit buyers, because they risk paying the price before being able to examine the goods and to see if they correspond to contract.

Because of this, the most commonly applied method of payment in international trade turnover is payment with documentary letter of credit (regulated with Macedonian Contract Law).

## CONCLUSION

What we can observe is that Macedonian Contract Law, although dedicates the relatively large number of provisions of the sales contract in general, in terms of the obligations of the buyer does not give detailed and clear distinction between the obligations of the buyer. Although from the definition of the contract of sale are not visible the basic obligations of the buyer, we think it is justified, because with introduction of the overall liabilities that have both sides of the definition would become too bulky, so heavily imprecise and unclear.

In the part of the Vienna Convention, where contained solutions for the rights and obligations of both parties are not only balanced, but also, these provisions are in accordance with commercial practice and the requirements of modern international trade relations. However, from the provisions relating to obligations of seller and buyer, we can conclude that the Vienna Convention understands the sales contract as an agreement on whose basis realize exchange of goods for money, ie for appropriate price.

From this paper we can conclude that there are many identical or similar legal provisions. This paper shows that the obligation of the

<sup>10</sup>Source:<http://www.unilex.info/case.cfm?pid=1&do=case&id=1362&step=Abstract>; day: 03.04.2008; state: Slovakia; number: 6 Obo 120/2007; court: Supreme Court of the Slovak Republic; parties:--.

buyer to pay the price which is regulated in the domestic law is different in some details from the obligation of the buyer to pay the price that is regulated in international trade law or international commercial law and international trade and case law in this part of obligation of the buyer have an effect on the legal definition and unification of national and commercial law, as well as the actions of domestic judicial authorities in the area of obligation of the buyer to pay the price.

It is essential that this diversity arises primarily from the power of tradition, practice and understanding of the concept of certain institutes and processes by each system, i.e. by countries belonging to the Anglo-Saxon and the continental system (where our ZOO). Macedonia is striving to achieve full harmonization of law in that part, but there are more things that need change. Indisputably, we established that practical solutions for the obligations of the buyer who are adopted at international level by the competent organs, affecting treatment in practice of domestic courts and competent authorities, which is evident from the examples of domestic and international practices presented in this paper.

In this paper we obtain knowledge for the obligation of the buyer to pay the price that is true and supported with facts and real experience.

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- Vasilevich, M. (2006). *Commercial law*. Belgrad.

## INSTRUCTIONS TO AUTHORS

### Submission of Papers

The papers should be submitted to the editorial office in electronic form (a diskette or e-mail) to the address [zurnal43@yahoo.com](mailto:zurnal43@yahoo.com), [japmnt@yahoo.com](mailto:japmnt@yahoo.com), with a note "for the journal". Only papers that have not been previously published or offered for publication elsewhere can be accepted, as well as those which meet the scientific criteria of the Editors.

### Writing the Paper

The first page should indicate the title, academic degree, the first name, initial(s), and surname of each author followed by his or her department, institution, city with postcode, and country. The fax, telephone number and Email address of the corresponding author should also be provided. (Font 10); the left block. If the paper has more than one author, each author should be given all the information contained herein.

The title should include the main idea of the paper. It is written in the middle, upper case letters (font size 12) and in bold-face. Abbreviations should not be used in the title. Subtitles are written in the middle, lower-case letters, in bold-face and numbered in Arabic numerals.

The abstract should contain from 100 to 250 words (font 10) and should include concisely specified facts, and summarize the illustrated procedures and methods of work performance. The abstract should not contain any undefined abbreviations or unspecified references. Citing references in the abstract is to be avoided.

Keywords should specify up to 10 (font 10) in italics, and should indicate the main research problem.

### Text Formatting

The text should be submitted in MS Word formatted in two columns. All pages of the main text should be numbered. The work should not be less than 5 and more than 10 pages of basic text on page A4.

Papers should be submitted in Serbian and/or English.

Citation should be given in the text, in parentheses. It should not be formatted as footnotes. Footnotes should be used, if necessary, for comment and additional text.

Author's surname in brackets, when using Harvard style citation, should also be written in the original language and script. Certain words and phrases can be, for scientific and professional needs, written in the original language and script. The names of foreign authors in the text are listed in the transcription of the first reference to the author or the source stating the name of the original author in parentheses. In the next reference to the same author, only a transcription should be mentioned. Citation within an article should state the author's name and the year of publication of the source, for example (Trajkovic, 2010). Specifying more than one author in brackets should be arranged alphabetically, not chronologically. If there are two authors, both are cited in brackets. If there are more than two authors, only the surname of the first author and the abbreviation et al are used in brackets.

### Tables

All tables should be on separate pages and accompanied by a title and footnotes where necessary. They should only illustrate data that are directly relevant to the thesis of the paper. The tables should be numbered consecutively using Arabic numerals. For each table, the title should be indicated. The title should reflect the essence of the data in the table indicating the given variables or the most significant relations among the data. If it illustrates the published material, its original source should be given in the form of a reference at the end of the table. Avoid overcrowding the tables and the excessive use of words. Titles, page numbers should be placed above the table so that the space under the table for the legend remains. Notes are placed under the table, and the words legend or notes are written in italics. APA follows the rule that vertical lines should be removed from the tables and only the most

necessary of the horizontal ones should be retained.

### **Figures and illustrations**

Figures and illustrations should have legend captions that accompany the illustration. They should uphold rather than duplicate the text, they should be easy to read, easy to understand and they should denote only the essential facts. The lines should be clean and simple. The curve and line graphs and outside edges of columns should be thicker than the lines of the coordinate system. The material should be scanned to record at least 300 dpi resolutions, and it is desirable to be of 600-1200 dpi. They should be stored in the Text Box in Word because it is lighter in page layout when printing. Figures and illustrations are numbered consecutively by category to which they belong.

### **Citing references in the text**

According to APA standards, the basic principle of citation in the plain text is "one author, one word". If there is more than one author, it is enough to mention the first one and point out that the author worked with associates, and then add the date of publication. With the author's name it is enough to mention only a year, and not the page, if the text is not directly quoted or does not include information which should be linked to the page. When a paper has two authors, always cite both names and years of birth, and surnames with a conjunction between them. If there are three, four or five authors, always first list all the names, and then just write the name of the first and add "et al". When a paper has six or more authors, cite only the first author in the plain text and then add text and " associates".

### **Reference**

List of references (font 10) should only contain works that are cited in the text, which have been published or accepted for publication. The list of references should not contain any source that is not used in the paper. Headlines of foreign publications should be given with an initial capital letter while the rest is in lowercase letters. If the paper has a subtitle, it is separated from the title by two points, and begins with a capital letter.

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The bibliographic unit should contain the last name and initials, the year of publication, the title of the book (in italics), the place of publication and the publisher, for example:

Trajkovic, P. (2010): Management, Vranje, Mapro

An article in a journal should include the last name and initials of the author, the year of publication in parentheses, the title of the paper, full name of the journal (in italics), volume (in italics) and the page.

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### **Evaluation of submitted papers**

All the papers having been reviewed and ranked, the editorial staff makes a decision whether they will be published or not. Based on the review, the editor decides on the acceptance and publication of the paper, and then informs the author. Attachments, floppy disks or CDs will not be returned or paid for. Papers that are not submitted in accordance with these propositions will not be considered for publication.

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