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## **Regional disparities of unemployment in the European Union and in Romania**

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### **Abstract**

The regional issues include a variety of events that reflect the persistence of imbalances/ disparities in the development of a country's regions (the trend of regional divergence).

The major problem faced by all European regions is the high level of long-term unemployment, interregional disparities in this respect being obvious. The many (negative) effects that unemployment generates - both for society and for individuals - fully justify the concerns of the world governments regarding both this reality and the continuous concern for finding solutions on employment at the highest level possible.

These are the reasons why, this paper analyzes the issue of regional disparities of unemployment, in the EU countries, focusing on Romanian regions, using statistical data relevant for this purpose.

**Keywords:** regional policy, regional disparities, macroeconomic indexes, unemployment

### **Introduction**

Regional policy includes all activities that have a significant word to say in the development of a region. Regional policy covers a large number of manifestations that reflect the persistence of unbalances/disparities in developing certain regions of a country (the tendency for the regions' divergence).

Regional disparities represent inequals or inequities. One of the most important consequences of disfunctionalities occurs on territorial level in the shape of regional imbalances.

The specialized literature in the field, which analyses the disparities between regions, is extremely vast and does not suggest that the existence of such differences would be caused by a single factor. There is a large variety of factors that contribute to the economic development and generates different levels of regional efficiency. Generally, regional disparities are generated by the precedent economic growth (the past economic growth) and the current conditions (i.e. income level, access for the masses to education and healthcare, workforce occupancy).

The first cause – the historic one – has a great role in the regional economic development. For example, in our country's case, the typical models for regional development of western countries, which have always had a prosperous economy, can not be implemented in the regional development of Romania, since they can not generate the same results. To find clear ways to resolve regional disparities in every EU state, it is necessary to build up a regional analysis of the territories from this geographic area. [14]

If the economic literature has managed to explain the causes of inequalities regarding the economic development of different EU regions, this problem managed to become an economic policy priority in the EU in the last two decades, especially after Greece, Spain, Portugal and lately Bulgaria and Romania joined the EU, countries which are characterised by a lower level of development compared to the EU countries, and also being marked by significant regional imbalances. [6]

The serious conditions of the problems that the regional development is facing, makes it easy to identify the determinant factors, but it also involves consuming some massive efforts and a large amount of time, in order to repair the noticed imbalances. [12]



In such circumstances, it becomes obvious the need of government interference in the purpose of eliminating/reducing regional disparities, through a regional policy.

### **Unemployment – macroeconomic indicator for regional disparities**

Disparities can be assessed by using macroeconomic indicators, adapted to regional level. The deviation of regional indicators from the country average, as well as the differences regarding the indicators at an interregional scale, sums up – along the level of economic development of all regions – the scale of regional discrepancies. For the very same purpose calculated are the differences between income and the level of labor productivity, the structure of the work force, [17]; the disparities in the availability and accessibility of natural and cultural resources and the asymmetry of infrastructure density. [12]

For a regional evaluation that would provide solid information regarding the existing differences in an area, various indicators can be used. Among these, two are of an overwhelming importance: the monthly average of the real net income of an inhabitant and the sectorial distribution of the employed work force.

The first indicator is one that best suggests the level of financial and material wealth of a country's population. This thing suggests that a growth in individual wealth is directly transposed in the quantity and quality of goods and services which can be acquired by a person. Even more, wealth and a high standard of living are supposed to direct expenses towards acquiring luxury goods or services to which only extremely high-income families gain access to.

The second indicator is also very significant, since in the developed countries, the structure of the economy is considered to be a basic condition which has to be taken into consideration in the process of economic development. [5]

Together with these two indicators, in order to assess the level of regional growth, we can make use of the following values: the regional demographic profile, the regional gross product, the unemployment level, investment level, the indicators that reflect the human wealth (child mortality, health and educational expenses etc). These variables can contribute to an understanding of the differences regarding development in a region better than comparing the level of real income does. [4]

Unemployment is an indicator not to be ignored, useful when evaluating regional disparities. The analysis of the current unemployment confirms the highly complex character of this phenomenon, but in the very same time it imposes taking into consideration more particularities which show up, even in short time spans.

The high number of (negative) effects brought forth by unemployment – both for society and for the individuals – fully justifies the world governments' concerns facing this reality and the perpetual concern towards finding solutions for the work force at the highest level possible. These are only a few of the causes why in this paper we analyse the issue of regional disparities of unemployment at a EU-country level and in Romania, by using relevant statistical data.

### **Regional disparities of unemployment in the European Union**

The statistical research on work force disparities in the European Union, transposed to the regions in Romania, is meant to be considered as an information source with a huge number of structuring possibilities, depending on various demo-social-economic characteristics, under international comparable conditions. The statistical indicators pointed out in this paper are: the unemployment rate, the number of unemployed by gender and the age groups.

Nowadays, there are a large number of characteristics of the labor market in the contemporary European Union: creating an increasingly smaller number of jobs from one year to another; the constant drop of the work force in the vast majority of the UE countries, unemployment increase in the long run, a cyclical growth that corresponds to different spans of the work force variation depending on the economic activity fluctuation; rigidity and disparity between national labor markets; different rules when speaking about the amount of the employers and about providing or not their compensation; the regional disparities of the European unemployment; unemployment, which affects unequally different population categories, for example, women more than men.

The economic analysis of unemployment and of their policies needs to underline the causes of unemployment, which can be synthesized as follows: the incompatibility between the qualifications available on the labor market and the ones requested by the companies, which generates structural unemployment; the differences between the

social cost and the private cost of the work force, as well as the different degrees of taxing; the institutional factors and the population movement, which explain the persistence of strong differences between the European unemployment rates; the significant degrading of the situation and of the jobs, which can be explained by the restrictive economic policies operating throughout Europe.

Strong regional disparities can be met when concerning unemployment rates. Some studies completed at the beginning of the 90's proved the deepening of regional differences from the point of view of the unemployment rate, which vary in the 4.6% limits (in the first 25 regions with the lowest unemployment rate) – 22.5% (in the case of 25 regions with the highest unemployment rate of the work force, such as: Spain, Southern Italy and Greece). [1]

The major problem which all regions were facing was the one of high unemployment rate on long term, interregional discrepancies being obvious this way as well: long term unemployment was reaching 60% in the first 25 regions with the highest rate of unemployment, unlike 30% in the first 25 regions with the lowest rate of employment.

The regions most affected by unemployment were in Spain, Southern Italy and the Mediterranean regions in France, while the least affected by unemployment were the ones in Finland, Eastern Germany and the north-east of France.

Disparities continue to exist and are being underlined especially between the urban regions and the rural ones: the most obvious performances are on the economic development lines and for eliminating discrepancies have been observed in the regions with a high degree of urbanization (Lisbon or Dublin). [7]

It is likely that the tendency of regional divergence to be maintained onwards. One of the basic reasons of the persistence of regional disparities in the EU results from the reduced mobility of the work force in the European Union, which poses a threat to unemployment reduction in the poor counties, like: Muenster (Germany) or Asturias (Spain).

## Regional disparities of unemployment in European Union Countries

Tabel no 1. **Unemployment by sex groups** (in thousand people)

	Total			Women			Men		
Time span	2007	2008	2009	2007	2008	2009	2007	2008	2009
<b>EU 27</b>	<b>16750,8</b>	<b>16548,5</b>	<b>21201,4</b>	<b>8266,2</b>	<b>7989,2</b>	<b>9542,9</b>	<b>8484,6</b>	<b>8559,3</b>	<b>11658,4</b>
<b>Belgium</b>	352,6	333,0	379,4	178,6	163,1	175,6	174,0	169,8	203,7
<b>Bulgaria</b>	239,1	198,5	236,7	119,3	95,1	107,4	119,8	103,3	129,3
<b>Czech Republic</b>	275,8	229,3	351,7	152,6	127,0	176,6	123,2	102,2	175,2
<b>Denmark</b>	109,6	97,7	176,5	56,7	51,0	74,6	52,9	46,7	101,9
<b>Germany</b>	3595,3	3135,1	3220,7	1660,4	1449,3	1390,6	1935,0	1685,8	1830,1
<b>Estonia</b>	31,9	37,9	94,3	13,1	17,7	35,8	18,7	20,1	58,5
<b>Ireland</b>	100,8	134,5	254,5	39,6	44,5	75,5	61,2	90,0	179,0
<b>Greece</b>	405,9	377,2	470,4	255,5	229,9	270,9	150,4	147,2	199,5
<b>Spain</b>	1831,8	2586,6	4145,1	1017,7	1277,0	1855,9	814,1	1309,6	2289,3
<b>France</b>	2218,0	2063,5	2564,9	1128,8	1049,8	1257,3	1089,3	1013,7	1307,6
<b>Italy</b>	1503,5	1685,6	1940,9	782,7	868,9	942,5	720,8	816,7	998,4
<b>Cyprus</b>	15,4	14,5	21,3	8,1	7,6	9,9	7,3	7,0	11,4
<b>Latvia</b>	70,3	90,2	202,2	31,6	40,8	81,2	38,7	49,4	121,0
<b>Lithuania</b>	69,0	93,4	224,3	34,3	44,4	85,1	34,6	49,0	139,3
<b>Luxemburg</b>	8,6	10,8	11,7	4,4	5,6	6,0	4,2	5,2	5,7
<b>Hungary</b>	311,7	328,8	420,3	147,7	154,6	186,8	164,1	174,2	233,5
<b>Malta</b>	10,8	10,3	12,1	4,1	3,9	4,4	6,7	6,4	7,6
<b>Netherlands</b>	276,7	236,6	298,8	144,1	119,4	138,7	132,6	117,2	160,0
<b>Austria</b>	185,3	162,1	204,1	95,7	80,4	90,1	89,6	81,7	114,0
<b>Poland</b>	1613,8	1207,2	1409,2	785,9	610,4	676,4	827,9	596,7	732,8
<b>Portugal</b>	447,9	426,6	527,5	251,7	232,7	266,8	196,1	193,9	260,6
<b>Romania</b>	640,2	575,2	680,5	242,2	206,2	256,9	398,0	368,9	423,6
<b>Slovenia</b>	49,9	45,5	61,0	27,6	23,0	27,7	22,3	22,6	33,3
<b>Slovakia</b>	295,5	255,5	323,3	150,3	131,3	153,0	145,2	124,3	170,3
<b>Finland</b>	183,3	171,8	220,8	93,1	87,1	98,5	90,1	84,7	122,3
<b>Sweden</b>	296,6	303,3	407,3	147,8	151,6	185,1	148,8	151,7	222,2
<b>United Kingdom</b>	1611,5	1738,1	2341,9	692,7	716,9	913,5	918,8	1021,2	1428,4

Source: EUROSTAT, <http://epp.eurostat.ec.europa.eu>, Accessed on 11th.04.2011

In 2009, the number of unemployed at the level of the European Union was of 21204,4 thousand people, an increase of 4450,6 thousand people, compared to 2007. The evolution in terms of gender was linear, meaning that the number of female unemployed as well as the number of male unemployed increased by 1276,7 thousand people, and 3173,8 thousand respectively.

As in the previous years, unemployment occurs the strongest for males, their percent in total being approximately 55%. In Ireland we find the highest rate of men unemployment, with a percentage of 70.33%, and in Greece, the jobless women represent a 57,59% of the total number of the unemployed.

The largest increase in the number of unemployed is to be found in Spain, of 2.3 million people, of which 838.000 are women and 1.47 million are men. Data shows the massive degradation of the labor market after the real estate market collapsed and the activity in the field of constructions dropped.

In opposition we find Germany, which has a drop in the number of unemployed by 374.600 people, of which 269.800 are women and 104.900 are men.

By distributing the unemployed on age groups (Table no 2), we observe that the 25-64 years group has the largest share, 75.7% of the total unemployed. These increased by 3.4 million unemployed from 2007 to 2009. Compared to this category we have the youngsters (15 – 24 y.o.) which have a share of 24.3% among all unemployed and increased in number since 2007 with 1 million (the tendency of these categories can be observed in the graph below).

The unemployment rate among youngsters is 18.5% in the Euro zone and 18.9% in the European Union, twice higher than the European average. Countries that have the highest share of unemployed youngsters are: Great Britain with 38.09% and Sweden with 38.6%, and on the other side we have Germany, which has the largest share of unemployed adults: 83.34%. Youngsters under 25 come across the most difficulties when looking for a job, as far as Eurostat data can tell. Spain and Latvia are the countries with the most unemployed under the age of 25, with 36.2%, and 29.2% respectively. Unemployment registering over 20% among the youngsters is recorded in Sweden (25.9%), Slovakia (25.2%), Hungary (24.5%), Ireland (24%) and France (22%). Unemployment among the youngsters represent without a doubt a huge risk for the future of human capital, the victims of this social

phenomenon being noticeable for a long time given this debut of their professional career.

Although the European trend regarding unemployment is upward, some countries recorded a drop. For example, Poland and Germany have an unemployment drop among youngsters by 39.200 people, and 47.400 respectively from the age group of 25-64 years old; put apart, the drop is about 165.400 people in Poland and 327.200 in Germany. Bulgaria as well recorded an adult unemployment rate drop, by 4.200 people. Of course, this is a very small drop, but it has to be mentioned, since it is out of the European pattern.

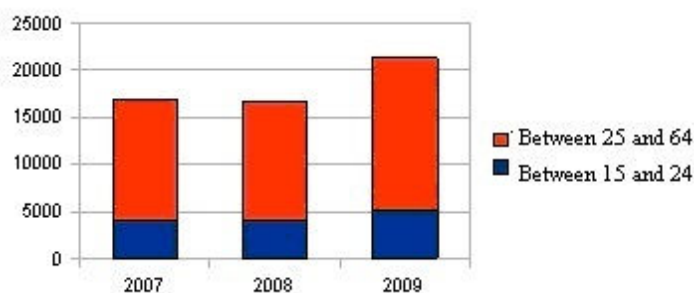
Table no. 2. **Unemployment on age groups** (thousand people)

Age	between 15 and 24			between 25 and 64		
Time span	2007	2008	2009	2007	2008	2009
<b>UE 27</b>	<b>4135,6</b>	<b>4148,1</b>	<b>5150,9</b>	<b>12615,2</b>	<b>12400,4</b>	<b>16050,5</b>
<b>Belgium</b>	82,0	77,9	93,1	270,6	255,1	286,3
<b>Bulgaria</b>	44,5	38,3	46,2	194,6	160,2	190,4
<b>Czech Republic</b>	46,0	41,3	70,6	229,8	188,0	281,1
<b>Denmark</b>	34,2	35,0	52,8	75,4	62,7	123,8
<b>Germany</b>	583,9	518,3	536,5	3011,4	2616,8	2684,2
<b>Estonia</b>	7,9	10,0	21,3	24,0	27,9	73,1
<b>Ireland</b>	31,9	41,3	66,0	68,9	93,2	188,5
<b>Greece</b>	83,7	76,6	89,3	322,3	300,6	381,1
<b>Spain</b>	442,7	593,0	841,5	1389,1	1993,6	3303,6
<b>France</b>	553,2	540,1	686,0	1664,8	1523,4	1878,8
<b>Italy</b>	379,8	399,0	449,9	1123,7	1286,6	1491,0
<b>Cyprus</b>	4,0	3,5	5,2	11,5	11,0	16,0
<b>Latvia</b>	16,5	19,9	47,8	53,8	70,3	154,4
<b>Lithuania</b>	12,0	22,1	46,7	57,0	71,3	177,7
<b>Luxemburg</b>	2,2	2,8	3,1	6,4	8,0	8,5
<b>Hungary</b>	57,6	61,0	79,2	254,1	267,8	341,1
<b>Malta</b>	4,3	3,7	4,3	6,6	6,6	7,8
<b>Netherlands</b>	84,8	76,2	95,9	191,9	160,4	202,9
<b>Austria</b>	52,2	48,5	59,8	133,1	113,6	144,3
<b>Poland</b>	402,3	309,0	363,1	1211,5	898,2	1046,1

Age	between 15 and 24			between 25 and 64		
Time span	2007	2008	2009	2007	2008	2009
<b>UE 27</b>	<b>4135,6</b>	<b>4148,1</b>	<b>5150,9</b>	<b>12615,2</b>	<b>12400,4</b>	<b>16050,5</b>
<b>Portugal</b>	85,9	83,5	93,4	362,0	343,1	434,0
<b>Romania</b>	196,7	177,3	196,9	443,6	397,9	483,6
<b>Slovenia</b>	10,8	11,4	13,7	39,1	34,1	47,3
<b>Slovakia</b>	59,8	51,5	69,8	235,7	204,1	253,5
<b>Finland</b>	56,3	56,1	69,4	127,0	115,7	151,4
<b>Sweden</b>	118,3	128,8	157,2	178,2	174,5	250,0
<b>Great Britain</b>	682,4	722,2	892,0	929,1	1015,9	1449,9

Source: EUROSTAT, <http://epp.eurostat.ec.europa.eu> Accessed on 11th.04.2011

Graph no. 1. Unemployment tendency on age groups in EU



Source: Interpretation after table no.2

In 2009 at European Union level, the number of unemployed between 15 and 24 years old was of 5150,9 thousand people, an increase by 1 million youngsters compared to 2007. The second group – unemployed between 25 years and over – recorded a value of 16 million people, an increase of 3.4 million since 2007.

In the same approach with the increasing of the unemployment rate among the youngsters, more and more older employers (55-60 years old) are excluded from the labor market. In France and Germany, the activity rate of this category dropped because of pre-retirement in the 80's, in an extent to reduce the declared unemployment. The restructuring operation then determined laying out elderly employees first, since they could be considered pre-retireable. As a consequence,

the unemployment rates among the elderly employees recorded the largest growth in these two countries: France and Germany.

### **Regional disparities of unemployment in Romania**

The issue of unemployment and disparities – as realities of the modern world – can be felt in Romania as well, just like in other European countries, there being multiple efforts to decrease them.

The regional development made it necessary implementing in Romania a statistical system of NUTS II level in the EUROSTAT catalogue, for the analysis and monitoring of disparities in regional development. In each of the eight Regions of Development there have been set up an equal number of General Directions of Regional Statistics, to ease up the process of regional development analysis.

Nowadays, the statistical data system at regional level is relatively limited. Within the program “Support for regional social-economic analysis for the National Development Plan” it was managed to create the first database which has to be developed such as to meet the needs of a Structural Funds’ plan analysis.

Statistical data shows that Romania entered the process of transition by having a relatively low level of local disparities, compared to other member states or candidates. These disparities increased rapidly and distinctively between Bucharest and the rest of the country.

Inter-regional disparities in absolute terms are relatively small compared to the European Union. In relative terms however, these reached levels compared to those in Portugal and The Netherlands.

A comparison of the regional disparities in Romania with the situation of other European countries shows that here too, as well as in Great Britain, France, Belgium, the Czech Republic, Austria, Portugal, Sweden, the best developed region is the capital, and the least developed are the border areas, similar to Western Europe, where the areas of the border near ex-socialist countries (Austria and Germany) are lagging behind other areas.

Except for Bucharest, which has a completely special economic situation, the economic development followed a west-east direction, the proximity of western markets spreading economic growth.

Although the statistical data present some time oscillations due to local factors, we can observe how the economic development had a significant geographical component, the underdeveloped areas being



concentrated in the North-East area, at the border with Moldavia, and in the South, along the Danube. Underdevelopment shows up as being related to unemployment and to major rural activities, like the lack of ability to attract foreign direct investments.

The North-East area is marked as being dependent on agriculture, but also by the proximity with Moldavia and the Ukraine. The same is valid, in a way or another, for the South-Muntenia area, dependent as well on agriculture, the place where the Danube acts like a barrier to between-borders commerce. The Western and Central parts of the country have the advantage of their position, being closer to western markets, and by their reduced dependence of the primary sector.

In Romania, in 2009 were 673.300 people unemployed, with 32.500 more than in 2007, 257.000 women, with 14.700 more than in 2007, and 423.800 men, with an increase of 25.300.

Table no. 3. **The number of unemployed, by gender** (thousands people)

Timespan	Total			Women			Men		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
<b>Romania</b>	<b>640,8</b>	<b>575,5</b>	<b>673,3</b>	<b>242,3</b>	<b>208,8</b>	<b>257,0</b>	<b>398,5</b>	<b>369,3</b>	<b>423,8</b>
<b>North-West</b>	51,1	44,6	55,2	19,7	15,2	21,5	31,4	29,5	34,6
<b>Center</b>	93,8	95,5	97,9	33,3	34,8	35,1	60,5	62,1	63,7
<b>North-East</b>	89,2	79,3	93,3	33,3	28,5	35,1	55,6	50,8	58,8
<b>South-East</b>	107,4	90,0	111,5	43,0	31,1	44,8	64,5	59,0	67,7
<b>Southern Muntenia</b>	131,6	108,1	135,7	50,5	45,9	52,3	81,1	63,1	84,3
<b>Bucharest - Ilfov</b>	43,1	35,9	47,2	16,6	12,5	18,4	26,6	23,4	29,8
<b>South-West Oltenia</b>	75,1	72,4	79,2	26,9	23,0	28,7	48,2	49,5	51,4
<b>West</b>	49,5	49,7	53,6	19,0	17,8	20,8	30,6	31,9	33,8

Source: Interpretation after EUROSTAT <http://epp.eurostat.ec.europa.eu> Accessed on 13th.04.2011

Table no. 4. **Unemployment rate by gender (%)**

Timespan	Total			Women			Men		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
<b>Romania</b>	<b>6,4</b>	<b>5,8</b>	<b>6,9</b>	<b>5,4</b>	<b>4,7</b>	<b>5,8</b>	<b>7,3</b>	<b>6,7</b>	<b>7,7</b>
<b>North-West</b>	4,3	3,8	4,9	3,6	2,8	4,1	4,9	4,7	5,2
<b>Center</b>	8,5	8,5	8,9	7,0	7,0	7,4	9,7	9,7	9,8
<b>North-East</b>	5,0	4,5	5,3	3,8	3,5	4,2	6,2	5,4	6,7
<b>South-East</b>	8,5	7,2	9,1	8,2	6,1	8,4	8,8	8,0	9,2
<b>Southern-Muntenia</b>	8,2	6,8	8,5	7,3	6,5	7,7	9,4	7,0	9,7
<b>Bucharest-Ilfov</b>	4,1	3,4	4,7	3,4	2,5	3,8	4,7	4,1	5,2
<b>South-West Oltenia</b>	6,8	6,5	7,3	5,5	4,6	5,9	7,9	8,0	8,3
<b>West</b>	5,6	5,7	6,1	4,7	4,5	5,1	6,5	6,6	7,1

Source: Interpretation after EUROSTAT <http://epp.eurostat.ec.europa.eu> Accessed on 13th.04.2011

In 2007, the highest rate of unemployment was recorded in the South-East Region (8.5%) and Center Region (8.5%), but besides these, unemployment increased to almost the same level in the South-Muntenia Region (8.2%), because of the restructuring applied to mining and the existence of the steel industry, which affected most of the large companies in these regions. As such, in 2009 there is an unemployment rate being recorded of 9.1% in the South-East Region and 8.9% in the Center Region, of 0.6% higher.

At national level, unemployment rate increased by 0.5% during this time, from 6.4% in 2007, to 6.9% in 2009. The highest increase is being recorded in the North-West Region, the South-West Region and the Bucharest-Ilfov region, with 0.6%.

The unemployment rate for women increased to 5.8% in 2009, and to 7.7% for men.

The decrease in unemployment can be explained by a high number of retirements, by a large number of people leaving abroad for work, work in the underground economy, but also by the fact that most of the long-term unemployed are not registered at the work force offices.

In 2009, at national level, there was registered an unemployment rate of 20.4% among youngsters (18.7% for women

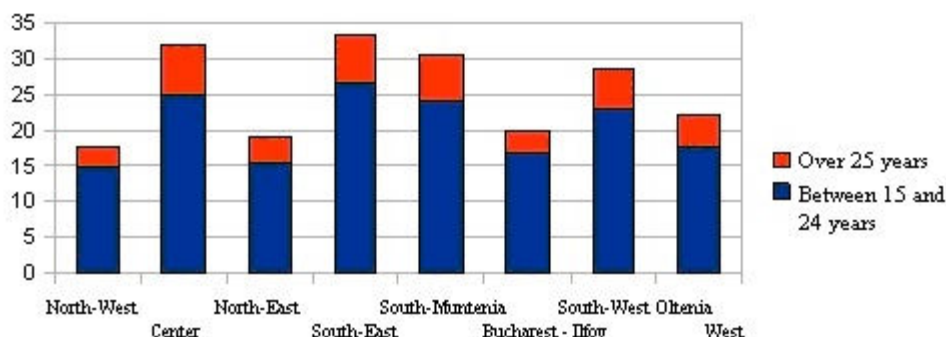
between 15 and 24 years old and 21.6% for men belonging to the same age group) and 5% for people over 25 years old (4.1% for women and 5.8% for men).

Table no. 5. **Unemployment rate by gender and age groups (%)**

Age	Between 15 and 24 years								
Gender	Total			Women			Men		
Time span	2007	2008	2009	2007	2008	2009	2007	2008	2009
<b>Romania</b>	<b>20,2</b>	<b>18,6</b>	<b>20,4</b>	<b>18,6</b>	<b>18,3</b>	<b>18,7</b>	<b>21,1</b>	<b>18,8</b>	<b>21,6</b>
<b>North-West</b>	14,3	13,5	14,5	13,3	13,0	13,4	14,2	13,9	14,7
<b>Center</b>	24,7	22,4	24,9	21,5	20,2	22,6	26,6	24,0	26,8
<b>North-East</b>	14,9	13,6	15,1	11,7	13,5	11,8	16,8	14,3	17,0
<b>South-East</b>	26,5	21,5	26,7	27,1	25,3	26,3	25,9	19,7	26,2
<b>South - Muntenia</b>	23,9	19,4	24,1	24,5	22,2	22,3	23,5	17,7	24,1
<b>Bucharest - Ilfov</b>	16,6	17,4	16,8	15,1	16,8	17,0	18,3	18,1	18,7
<b>South-West Oltenia</b>	22,7	21,1	22,9	20,4	18,1	18,5	23,2	24,2	24,1
<b>West</b>	17,6	20,2	17,8	15,4	17,3	17,4	18,5	22,3	21,4
Age	Over 25 years								
Gender	Total			Women			Men		
Time span	2007	2008	2009	2007	2008	2009	2007	2008	2009
<b>Romania</b>	<b>4,9</b>	<b>4,4</b>	<b>5</b>	<b>4,2</b>	<b>3,4</b>	<b>4,1</b>	<b>5,6</b>	<b>5,3</b>	<b>5,8</b>
<b>North-West</b>	3,2	2,8	3,3	2,6	1,9	2,5	3,9	3,7	4,1
<b>Center</b>	6,7	6,9	6,8	5,5	5,6	5,4	7,6	7,9	7,8
<b>North-East</b>	3,9	3,5	4,0	3,1	2,4	3	4,6	4,4	4,8
<b>South-East</b>	6,4	5,6	6,5	6,2	4,2	6,1	6,5	6,6	6,7
<b>South - Muntenia</b>	6,3	5,2	6,4	5,4	4,9	5,3	7,0	5,5	7,2
<b>Bucharest - Ilfov</b>	3,1	2,3	3,2	2,8	1,6	2,8	3,5	2,9	3,7
<b>South-West Oltenia</b>	5,4	5,0	5,5	4,2	3,4	4,1	6,3	6,3	6,5
<b>West</b>	4,3	4,2	4,4	3,7	3,4	3,6	5,0	5,0	5,2

Source: Interpretation after EUROSTAT <http://epp.eurostat.ec.europa.eu> Accessed on 13th.04.2011

**Graph no. 2. Unemployment rate by age groups in 2009 at the development regions level**



*Source: interpretation after Table no.5*

After 2007, unemployment suddenly increased in all the regions of the country, but the highest unemployment rates were recorded in the areas having a fragile economy: Center, South-East and the smallest, Bucharest-Ilfov region and region West.

The unemployment map designed on regions visually explains the entrance of foreign capital, and the areas with the highest unemployment rate correspond to the areas in industrial downturn, with imbalanced economies, where the shock of losing competitiveness was not absorbed by satisfactory input of foreign or internal capital. Of course, an important role is played by the transportation and public utilities' infrastructure, but also by the improper qualification of the local work force which was not requalified as necessarily.

One of the effects of the economic crisis in 2009 consists of an unemployment increase, generalised at territorial level. Increase of unemployment in Romania was recorded in the Western area of the country (characterised, until the crisis started, by one of the lowest levels of general unemployment rate and even by a shortage of the work force), but also in the North-East and South-East regions („traditionally” areas with high unemployment).

With 7.2% unemployed, Romania is close to the European average of 7.1%, but does not report any progress compared to 2007. The unemployment rate in the European Union dropped by almost 1%, compared to last year, reaching a 7.1% in April 2008, compared to 8%, in April 2007. In the 27 member countries of the Union we are considering about a total of 16.7 million unemployed, compared to 18.7 million last year. The Netherlands has one of the lowest unemployment

levels, having an unemployment rate of only 3.3%, closely followed by Denmark with 3.4% and Ireland with 4%. The worst situations are being recorded in the Eastern Europe: Poland with an unemployment rate of 11% and Slovakia with 10.5%. Romania is part of the European average, with an unemployment rate of 7.2%, being the tenth country according to the number of unemployed. Also, Romania is the only one in the 27 European Union countries in which the rate stood the same as last year. In the 22 European member states this percentage dropped, but in four of them it increased. (Numbers quoted were made publicly available by EUROSTAT).

Unemployment is the direct expression of the economic growth rhythm (internal gross product), of work productivity and of the dynamics of employable people.

A relevant aspect by which unemployment acts is the fact that, releasing the work force due to the technological change implemented in different fields of the economy, while the process of creating new jobs stood still or had a very slow increase. This is in direct correlation with the regional and local economic development.

The technical progress offers the economic entities extraordinary opportunities by facilitating turnover. And, in the absence of a clear set of rules, uniformized and institutionalized at a social level, on the base of clear asymmetries, technological progress can be followed by some delays, turbulence and disorder.

In the current conditions, when technological and technical advance has an increased level, fiscality and keeping high interest rates equal with compromising existing material capital, by blocking the investment process which fuels the economic imbalances, mainly the unemployment.

Chances of considerable rehabilitation of the existent situation are not yet to be seen, but there are numerous efforts being carried out to reduce this rate of unemployment.

### **Conclusions**

The present paper analyzes the regional disparities of the population, of the work force occupation and of unemployment, existent at the European Union level, and at the level of the regions of development in Romania, and underlines the role of these disparities within the regional policy of the European Union.

Development appears as being an imbalanced process, but in the same time hierarchized, in which a certain number of economic units

play an engineering role which places them in the spotlight, compared to others. The regional differences when talking about standards of living among nations are sometimes considerable. When nations unite into an economic union, regional disparities inside them are expected to be great. Even more, one of the consequences of the economic integration is causing a dislocation in the poorer areas – if politicians do not act to prevent this.

Disparities of unemployment in the European Union can be summed up this way:

In 2009, as well as in the previous years, unemployment is highly manifested among men, their percentage in the total of unemployed being almost 55%. In Ireland there is the highest percentage of unemployed men, of 70.33%, and in Greece, the joblesswomen sum up 57.59%.

The highest increase in the number of unemployed is in Spain, of 2.3 million people, of which 838.000 are women and 1.47 million are men. At the other end there is Germany, which recorded a drop in the number of unemployed by 374.600 people, of which 269.800 are women and 104.900 are men.

Although in European there is an upward trend regarding unemployment, some countries recorded a drop. For example, Poland and Germany recorded a drop in unemployment among youngsters of 39.200 people, 47.400 people respectively, and among those between 25-64 years old of 165.400 people in Poland and 327.200 people in Germany.

Regarding unemployment disparities in Romania, we can state the following:

In 2007, the highest unemployment rate was recorded in the South-East Region (8.5%) and in Region Center (8.5%), but besides these regions unemployment increased to almost the same level in the South Muntenia region (8.2%), due to the reorganization of the fields of mining and heavy industry, which affected the large companies in these regions. So, in 2009, there was a high unemployment rate of 9.1% in South East region and 8.9% in the Center region, of 0.6% higher. At national level, the unemployment rate increased by 0.5% in this period, from 6.4% in 2007, to 6.9% in 2009. The highest increase was recorded in the North West region, the South West region and Bucharest Ilfov region, of 0.6%. The unemployment rate in case of women rose to 5.8% in 2009, and to 7.7% in the case of men. A decrease of unemployment can be explained by the outsized retirements, leavings abroad for work

and also due to the work in the underground economy, but also to the fact that many of the long-term unemployed do not register at work force offices.

One of the effects of the economic crisis in 2009 consists of an increase in unemployment, generalised at territorial level. The increase of unemployment in Romania recorded both in Region West of the country (characterised until the crisis by the lowest rate of the general level of unemployment and even by a work force deficit), but also in the North East region and the South East region (areas “traditionally” considered as registering high unemployment).

A solution to overcome discrepancies on the labor market in Romania, compared to countries in the European Union, could be accomplished by improving the existent educational system and by increasing labor productivity by: increasing investments in human capital, in accordance with the Lisbon agenda; by creating some partnerships between companies, public authorities and universities; by adapting the educational and training system to the demands of the labor market.

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## **Managing Higher Education for Sustainable Development in Nigeria: Implications for Policy Challenges**

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### **Abstract**

During the 20<sup>th</sup> century, formal higher education has expanded very rapidly all over the world. Investment in human resource development has been considered to be a powerful metaphor for a healthy competition in the new world order for various reasons thus an increasing private demand for higher education. The view that education is a fundamental human right contributed to the rapid expansion. Special economic, social and political power attached to the positions given to graduates of higher education, attracted more and more students. There are economic and political reasons for the expansion of higher education. For all the countries, a university has been a symbol of national or regional prestige and this, too, has been responsible for the increasing number of universities around the world. In Nigeria since independence, various governments have spent substantial portion of their national budgets to develop education. Investments in this magnitude have been justified at all times as a means of producing rapidly the skilled manpower required for national development. This paper is concerned with the quality of universities in Nigeria. The main purpose is to show that the Nigerian university system is at the crossroad.

What is happening in Nigeria today is certainly widespread in Africa, but not necessarily universal. Three strong evaluative words: relevance, usefulness and identity from the thesis of the paper. The paper notes that universities in have not been particularly pertinent, serviceable and contemporary on consonance with the challenges of the new world order.

**Keywords:** development, education, higher education, Nigeria, universities

### **Introduction**

The history of higher education in Nigeria is closely associated with the formal opening of the Yaba Higher College in 1934. The college was set up to produce “assistance to the colonial personnel in varied fields such as Medicine, Engineering, Surveying and Teacher Education. Compared with the length of time required to complete a similar course at the university, the duration of courses at Yaba Higher College was unduely lengthy (some 7 years for medicine and 5 years for engineering). The work done there was of high quality. Proof of this was the performance of graduates of the college in their occupations and the ease with which they obtain higher qualifications if they had the opportunity for further studies.

The Diploma awarded at the college was unfortunately accorded inferior status compared to the university degree. The graduates were not appointed to seniors’ positions on the grounds that their qualifications were not equivalent to those awarded by universities in Britain. Whose still, the graduates were disappointed when denied admission to professional status. The Diploma did not qualify the graduates to sit for the external Degrees of either the university of London or Durham University.

The College was characterized with high-drop-out rate, repetition and inferior status. These made attendance at the College an unpleasant experience.

As the demand for self government was conceded after the second world war, enlightened opinion recognized the urgent need for university institutions to be set up to train the Nigerian personnel. This came into being the University College, Ibadan in 1947 just as Makerere University College in Uganda in 1946, Gordon College in Sudan in 1947 and the University College of the Gold Coast in 1947. The Ibadan

University College was set up by the British Colonial Government based on the recommendations of the Elliot Commission. At its inception in 1948, the University College, Ibadan inherited the staff and students of the Yaba Higher College. Courses offered at the college were in the Arts, Sciences and Medicine. Between 1984 and 1063, the University College prepared its students for degrees of the University of London as was recommended by the Ashby Commission. Until 1960, Ibadan University College remained the Nigeria's only university.

Under the Macpherson Constitution of 1954, the regional governments in Nigeria were granted greater autonomy. Higher education for instance was placed on the concurrent list. In 1955, Dr. Akanu Ibiam proposed a bill to set up a university in Eastern Nigeria. Dr. Nnamdi Azikiwe championed the crusade and used his international connection and the Eastern Regional Assembly passed a bill to set up a university. This was not effected until November 1960 when the University of Nigeria Nsukka was formally opened. The university was founded in close association with the University of Michigan.

There was the Ashby Commission in 1960 headed by Sir (later Lord) Eric Ashby. The recommendations of the commission have been a profound influence on the structure of university programmes all over English speaking Africa but especially in Nigeria. Following the commission report, the universities of Lagos, Ife and Ahmadu Bellow were established in 1962, 1961 and 1962 respectively and the Ibadan University College was upgraded in 1963 to a full-fledged and autonomous university. These institutions departed from the previous pattern in several ways –they began from the outset as full-fledges universities awarding their own degrees, and offered courses in a diversity of disciplines relevant to the needs of the emerging independent nation.

In 1970, the Mid-West Institute of Technology at Benin was converted to the University of Benin. This marked the beginning of the “2<sup>nd</sup> general universities”. In the mid 1970s, four new universities at Calabar, Jos, Maiduguri and Sokoto and three university colleges at Ilorin, Kano and Port Harcourt were set up. The Colleges were upgraded to universities in 1977. Between 1980 and 1982, the Government approved the establishment of seven universities of Technology Bauchi, Makurdi and Owerri (1980), Akure and Yola (1981) and Abeokuta and Minna (1982). Abeokuta and Makurdi were in 1987 converted to Universities of Agriculture. And also between 1979

and 1984, the following state universities were established: Rivers State University of Science and Technology, Imo State University, Bendel State University, Ondo State University, Anambra State University, Ogun State University and Lagos State University.

As part of measures to ensure that qualified high level manpower was available at the nation's high school system, the Federal Government in 1982, directed that seven Colleges of Education located at Ondo, Owerri, Abaraka, Kano, Port Harcourt, Uyo and Zaria to run first Degree Programmes in Education. Kaduna Polytechnic was also granted the power to run Degree Programmes in Technical Education with effect from 1987. The Colleges at Uyo and Abaraka have since become universities. And in 1984, agree in principle to establish the University of Abuja. The institution has fully started.

Today, there is no less than 80 Degree awarding institutions including the Nigeria Defense Academy in Nigeria, preparing the new generation for survival in the 21st century.

### **Quantity versus quality**

By 1960, the highest seat of academic learning was the university college; Ibadan established in 1948. Before the end of 1960s, the harsh realities of independence began to manifest them. Political dissent started to emerge and was met with repression. Inter-ethnic rivalry and suspicion escalated to open internal conflict. There was a bloody civil war from 1967-70. Corruption, military coups, election malpractices and disregard for rule of law led to doubts in the minds of many. Regarding the Universities, political leaders soon discovered that they were very expensive institutions and governments began to wonder whether the high cost of maintaining them was justified in terms of returns to the nations. Politicians also turned their attention to the privileges and freedom which the universities were claiming and enjoying, especially as much of the criticism of the political class came from the university.

In the 1970s, the economic maladies, social pathologies and political vagaries escalated to a wider crisis. Many external and internal factors made Nigerian economy crippled. Inevitably as the crisis depends, financial allocations to universities were drastically cut and facilities began to deteriorate. Consequently, the quality of service, instruction, research and identity built up over the years could be sustained. This was the origin of qualitative decadence in Nigeria

universities. The size and complexity of universities today call for rapid and efficient methods of planning, communication and analysis of administrative function. The politicians only went ahead to create universities particularly the regional and state ones. The country at the, that juncture missed another opportunity of national integration at the highest intellectual level. Rather, what were amplified further following the regional universities were polarization, spatial injustice and social inequality. The situation is sad, sordid and sympathetic.

Worse still, universities sprung up at an incredible rate that no one gave thought to the development and evaluation of academic traditions, let alone the maintenance of the already not too high academic standards and integrity. Poorly staffed and poorly equipped, Nigerian universities have become veritable wooden towers, ready to go up in smoke and flames at the least provocation. Universities are created in name only, as institutions that cannot function.

The agony of Nigerian young men and women who yearly performed the ritual of the JAMB examination but are unable to secure a place in one of the many universities can hardly be expressed in words. There is no doubt that if there is proper planning, the five so called first generation universities could serve the university educational needs of the youths sound like a paradox and of course dramatic. But the reality of the situation is that Nigeria has universities that are victims of book famine, shortage of materials supplies, under-funding, under-staffing and worse still with poor structures and little or no facilities for research.

Because of the poor physical and intellectual state of the universities, new and disturbing development have emerged. There is a high attrition rate among staff often referred to as brain. The colleges of Medicine and Applied Sciences are the most affected. In the circumstance that follows, one may want to know the quality of instruction offered in these institutions: how have the universities created awareness in the individual; carry on a dialogue with those who generate the knowledge; enable individuals to create new knowledge. None of these tasks are simple. Even the dissemination function requires careful planning and forethought.

To be realistic about what actually happens in university settings in Nigeria today, what is being promoted is. At most, they are able to teach students to recognize concepts that typify common fields of endeavor and the terms that describe those concepts. Often the process

is boring and depends on memorization, routine, testing and review. The process can be “puffed up” and made to look prestigious because the university remains something of mastery to many in the public at large. But the function actually performed is routine treatment of common knowledge. For many university faculties, the only pedagogical technique and practice is memorization, rote learning, grammatization, ornamental meritocracy and little attention to the stimulation of students to be critical and creative for themselves and the society. The normal pattern is for the teachers to condense textual materials into notes that they either dictate or hand out and for the students to further abridge and crame them as thoroughly as possible in order to reproduce at exam pass.

There is dysfunctionalism in Nigerian universities. The universities lack relevance and identity. Undergraduates and post-graduate students demonstrate not only ignorance but also little or no inclination for basic research. They neither write good prose (literacy), discuss intelligently (articulacy), illustrate effectively (graphicacy) nor provide concrete proof of their analyses in figures and other numerical values (numeracy). So long as the graduates lack these skills, they are only but “educated illiterates and “urban villagers”. Considering the demands of the new world order in the 21<sup>st</sup> century, one wonders if there is any future for an illiterate society –certainly not in the 21<sup>st</sup> century, one wonders if there is any future for an illiterate society-certainly not in the 21<sup>st</sup> century.

Without any fear of contradiction, it is clear to note that quality has been sacrificed in the process of quantitative growth. The proliferation of universities is certainly functional and pseudo. Some of the universities fell into the trap of rapid expansion but without adequate planning. The abandoned project sage is yet an evidence of this assertion. As a result, rapid growth in enrollments led to much over crowding, recruitment of less-qualified teachers, and insufficient equipment and laboratory facilities for adequate operations. Furthermore, universities absorb most admitted students not into their choice of specialization.

This results in graduation of large number of students in field in which they are not interested. This is yet another dimension of the unfinished agenda.

### **Policy implications**

Education entails a recognition of the interdependence of people, the acquisition and cultivation of such virtues as caring for our fellow men, honesty, integrity, faithfulness, sympathy, thoughtfulness, trust and a healthy attitude towards work to mention only but a few. In its second National Development Plan, 1970-1974, Nigeria articulated a set of five national objectives. These means to build up:

- (a) A free and democratic society
- (b) A just and egalitarian society
- (c) A united, strong and self-reliant nation
- (d) A great and dynamic economy; and
- (e) A land of bright and full opportunity for all citizens

In order to realize these objectives, universities were made to aim at:

- (a) The acquisition, development and inculcation of paper value – orientation for the survival of the individual and society;
- (b) The development of the intellectual capacities of individuals to understand and appreciate their environments;
- (c) The acquisition of both physical and intellectual skills which will enable individuals to develop into useful members of the community;
- (d) The acquisition of an objective view of the local and external environments.

Universities are the apex of academic learning. The teaching and research functions should have important roles to play in national development. That apart, universities had been known in the Western world to be one of the best means for developing national consciousness. Clearly, the Nigerian universities have not lived up to either the traditional objectives or the aims as set out in the National Policy on Education. They have not been particularly effective in directing the nation to the path of truth and equity. If this were different then indiscipline, corruption, disorder, and unpatriotism should no longer be the bane of the Nigerian society particularly among leaders. Perhaps what universities in Nigeria seem to have succeeded in doing is the development of intellectual capacities of the individual but unfortunately not to understand and appreciate the environments rather, to exploit, cheat, and manipulate the environment for selfish purpose. The system has failed not only as a mechanism for westernization but also as an instrument for the identification, modification and codification of Nigerian cultural values. Consequently, universities have

been a disastrous clash of cultures. The products are neither Western nor Nigerian. Perhaps the western values have really been understood and appreciated while the local values are misunderstood, denigrated and sometimes discarded.

The 1962 UNESCO Tananarive Conference on the Development of Higher Education in Africa remarked the issues of reliance and identity as important factor in ensuring sustainable development through universities. The preamble of the Association of African Universities which followed the conference reads as follows.

*Conscious of the role of African Universities to maintain an adherence and loyalty to world academic standards, and to evolve over the years a pattern of higher education in service of Africa and its people, yet promoting a bond of kinship to the large human society”.*

The significant points in the preamble include:

- (i) The acceptance of the existence of a world standard; and
- (ii) The necessity to evolve a pattern suited to the need of Africa without disregarding the assumed world standards.

These are the challenges of universities in Nigeria as well. While it is, however, debatable whether there is indeed “universalistic ness” in the world standard of universities, we may wish to take refuge in Sir Eric Ashby’s remark that the African university should refurnish in the house of Western tradition and adapt their degree programme to fit the needs of the African society. But it must be noted that African universities cannot be engines of national development if their frame of reference is confined to local political predilections and ideologies as in the case of Tanzania particularly at the University of Dar-es-Salaam.

Nigeria universities should enhance sustainable development by intensifying and diversifying their programmes within the context of the needs of culture, society and economy without prejudice to intellectual training in basic sciences and liberal arts. There needs to be effective machinery for the identification of the manpower needs. The universities will enhance national development when the quality of their graduates is improved through consultations between them, the employers of labour and the government. This must be followed with proper funding and links with the industrial sector to facilitate research.

During the 21<sup>st</sup> century, it is increasingly evident that the societies which will survive are those that recognize that knowledge and ideas are critical to development. Indeed, the keys to the future are embodied in ideas, in research, in knowledge which can be modified



and reorganized to improve the quality of life of the citizens as demonstrated in higher incomes, higher standards of education, better health and adequate nutrition. This is a challenge to universities.

In addition, as the enabling environment and the rules of the game for industrialization is dramatically changing, the pivot of development are but information technology, aerospace, electronics, materials science, chemical and pharmaceuticals and the biological develop through biotechnology. The science bases for sustainable development will be provide by biotechnology, communication technology and computers. The players in this emerging industrial world of the 21<sup>st</sup> century will be those countries that have invested in the necessary skills through research at the frontiers of Physics, Chemistry, and Biology and of Engineering through the instrumentality of qualitative education particularly post-graduate studies. In view of this, Nigeria should chose between encouraging the mad rush for university paper qualifications otherwise known as degrees and the proliferation of the institutions to award such degrees or make emphasis on the heart of the matter: “relevance, usefulness and identity to be part of the 21<sup>st</sup> century crusade for sustainable development in consonance with the new world order of globalization, differentiation and interdependence which is propelling the east Asian Miracle.

### **Summary and conclusion**

This paper is concerned with the quality of universities in Nigeria. The main purpose is to show that the Nigerian university system is at the crossroad. What is happening in Nigeria today is certainly widespread in Africa, but not necessarily universal. Three strong evaluative words: relevance, usefulness and identity from the thesis of the paper. The paper notes that universities in have not been particularly pertinent, serviceable and contemporary on consonance with the challenges of the new world order. The universities are in the throes of a major crisis, which has been brought on by economic recession, unchecked demand, and political *naïveté* about higher education functions. The paper resonates that the consequence is that the universities are bewildered with ornamental meritocracy, memorization and devoid of complete scholarship and intellectualism. The paper makes it clear that the proliferation of universities has done

no good to Nigeria. That the Nigerian universities are bleeding to death is not an exaggeration. In view of this, the author recommends some policy decisions that can help alleviate the plight of universities.

The problems and issues facing universities in Nigeria cover a wide number of areas: quality of instruction, admission policies, practices, and shortage of qualified faculty particularly due to attrition, and limited research facilities. If universities adjust to the new realities, they will be able to prosper but is not they will continue to decline as the product becomes more and more similar to high school leavers. In view of sustainable development, the universities should adjust by:

- Negotiating with their governments to name social functions;
- Forging a trusting relationship with governments and employers of labour;
- Managing themselves in a fashion similar to modern business;
- With other institution having similar research comparative advantage.

In the 1960 and 1970s, it was not uncommon to justify university education in Nigeria in parochial terms, and to consider a university as an academic finishing school for local elites. At the same time, universities have been portrayed as having an economic function in that it can help bring Nigeria out of its predicament of depression. This paper is of the view that one cannot have it both ways. A finishing school cannot be expected to pull its economic weight competitively. To do that one needs to be more purposeful. To achieve serious national goals, one needs to make serious choices.

Indeed, the level of national development in any nation is directly related to the relevance, usefulness and identity of the educational system. If Nigeria should enhance national development through the universities, they must emphasize, extol and exemplify the basic positive human attributes and virtues of life such as intellectual meritocracy, academic discipline, creativity, industry, patriotism, academic excellence, self reliance and high sense of responsibility. For as the school, so is the state of national development (economy and society) and the quality of the graduate- the product of both the school and the culture. Whatever Nigeria want in the society, the country must put it in the educational system.

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## **Globalization and Asymmetrical Warfare: Operation Athena**

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### **Abstract**

Since 2003, *Operation Athena* represents Canada's contribution to the International Security Assistance Force (ISAF) in Afghanistan. This article explains the Canadian role as an international security provider in general and a closer look on the background, the rationale and the structure of *Operation Athena* - how it supports the Canadian priorities and objectives in Afghanistan toward 2011.

**Keywords:** globalization, Operation Athena, terror

The 9/11 terrorist attacks represent the largest loss of human life resulted from a foreign attack in North America. In less than a day, the world political map had dramatically changed. A new enemy forced us to redefine our concepts in terms of defense and security. More sophisticated, disciplined, patient and lethal, who make no distinction between military and civilian targets, who don't use words like "collateral damage", this new kind of danger reveals us that our democratic values are far from being safe. This lesson shows us, beyond any doubt, that in this new age of terror, we all are primary targets.

In the immediate aftermath of the terrorist attacks, the international community became aware of the necessity of an elaborated plan of action capable to prevent future attacks of this kind. The ultimate goal is to preserve our democratic values, our present civilization. To accomplish that, we have to enter into a new global

conflict, which soon has become known as the “War on terror”. In terms of defense and security, Canada has always considered United States as a loyal and traditional partner. Bound by strong economic ties, sharing similar democratic values, our countries continue to work together to preserve our common legacy. The 9/11 terrorist attacks shows us the necessity to reevaluate our security architecture to meet this type of new threats. Facing this new enemy, it became evident the necessity of a strong and more synchronized global response. As partners in North American Aerospace Defense Agreement and North Atlantic Treaty Organization and also by conducting military exercise together, collaborate in security-related research, Canada and United States stress the necessity to improve their efforts in providing a unique and adequate defense solution.

As Canada First Defense Strategy states, the security efforts should be focus on keeping our citizens safe and secure, defending our sovereignty, and ensuring that Canada can return to the international stage as a credible and influential country, ready to do its part. Defending North America is an important commitment assumed by Canada. To create a more effective and responsive army, the Department of National Defense’s budget will be substantial increase with funds close to 490 billion \$ over a period of two decades. As a partner in the campaign against terrorism, Canada had deployed civilian and military personnel to Afghanistan and to the Persian Gulf since 2001 and participated in joint operations with US. A mutual commitment to “war on terror” demonstrates the importance of cooperation in securing North America. As a result, to better protect our citizens and economic interests and also to create a zone of confidence against terrorist activity, we combined our efforts to increase the security of our borders. This agreement was also a common approach to securely facilitate the flow of people and commerce between Canada and United States.

Defending North America against 21<sup>st</sup> century threats remain a priority for Canada as well as for United States. Geography, economic interdependence, share values and interests had increased our close cooperation. Therefore, we have currently over 80 treaty-level defense agreements (such as North American Aerospace Defense Command, Canada-United States Permanent Joint Board on Defense, Canada-United States Military Cooperation Committee, Defense Development and Defense Production Sharing Arrangements, The Canada-US Testing

and Evaluation Program, The North American Technology Industrial Base Organization, Mutual Support and Integrated Lines of Communication Memoranda of Understanding etc), more than 250 memoranda of understanding between our defense departments and close to 145 bilateral forums related to defense issues. These military organizations, created as a result of these agreements, became more important in achieving our common security. The importance of domestic issues, like Hurricane Katrina - 2005, increased also the role played by Canadian Force in providing help to local authorities in North America. Also, as a part of its aerospace control mission, NORAD assists in the detection and monitoring of aircraft suspected of illegal drug trafficking. In May 2006 a maritime warning mission was added to NORAD Agreement which also shows the importance of cooperation between Canada and United States. Canada-United States Permanent Joint Board of Defense remains the highest-level defense forum on security issues affecting North America since its creation in August 1940.

Canada was a trusted ally of United States in most major conflicts since the Second World War, including the Korean War, the Gulf War and most recently the war in Afghanistan. In terms of defense, the "Framework for Enhanced Military Cooperation among North American Aerospace Defense Command, United States Northern Command and Canada Command" stress the necessity of complementary mission and cooperation to meet our individual and collective responsibilities for the defense and security of North America. To eliminate gaps, our common effort should be focus on issues like contingency and crisis planning, operations, intelligence and information sharing, exercises and trainings, and working with mission partners.

Reflecting the increasing importance of preserving our common security, Canada First Defense Strategy proves, once more, that our leaders regard the defense of North America as a top priority and stress its importance by sustain it with an ambitious financial effort and a very strong political commitment. Canada is far from self-sufficient with regard to its economic prosperity or national security. The recent international political developments show that the well being and security of Canadians depend on how they respond to the constraints, dangers and opportunities which come from the global environment.

Therefore, the Canadian defense policy must be focused on participating in politico-military alliances and international forums to prevent and to combat terrorist activities, to promote peacekeeping, arms control and disarmament. For that reason, Canada had signed international agreements such as the Charter of the United Nations, the North Atlantic Treaty, the NATO Status of Forces Agreement, Geneva Conventions, and the Treaty on Conventional Armed Forces in Europe, the United Nations Convention on the Law of the Sea. Canada has been an active member at the United Nation who brought pragmatic ideas and solutions, from peacekeeping proposals in the 1950s (the participation of the Canadian Forces in peacekeeping missions in Suez Crisis, Cyprus or Yugoslavia), to creating the International Criminal Court and banning landmines in the 1990s. The military obligations taken by Canada in 1949, defined by the fifth article of the North Atlantic Treaty, were fully assume by the Canadian Forces as a part of “Operation Athena” in Afghanistan. The terrorist attacks of 9/11 in United States or those who follow in Madrid and London reveal, once again, that we need to reconsider our priorities in term of security. As a result, NATO has been reformed and reshaped to better respond to this new kind of threat. A new policy of engagement was designed to better protect our transatlantic community and values. With this new vision, it comes clear that the war against terrorism should be conducted worldwide, especially in so-called “terrorist heavens”.

Domestic laws and international agreements are vital components in providing security and well being for Canadians. On a long term, building strong relations with Canada's traditional partners, preventing terrorist activities home and worldwide, applying the internal legislation and assuming the obligations stated in international agreements are very important factors in preserving our well being and economic prosperity.

On searching for answers, after 9/11, mostly all worldwide intelligence agencies confirm that Al Qaeda terrorist group, run by Saudi Osama Bin Laden, was responsible for this ferocious attack and that it was operating in Afghanistan under the protection of dictatorial Islamic regime known as the Taliban (The 9/11 Commission report, W.W.Norton & Company, New York). The international community, under the auspices of the United Nations, created an International Security Assistance Force (Resolution 1386) with the authority to replace the Taliban regime with a new governmental body created under

the term of Bonn Conference ( December 2001). Soon after Taliban's defeat, to support the reconstruction of Afghanistan, United Nation mandated the International Security Assistance Force in creating and maintaining a secure environment in and around Kabul and to assist the new established Afghan Interim Authority.

As a member of international community, Canada had joined the International Security Assistance Force with one over-arching objective: to leave Afghanistan to Afghans, in a country that is better governed, more peaceful and more secure.

Canada's contribution to the International Security Assistance Force in Afghanistan, known as "Operation Athena" began on 17 July 2003 with the installation of Brigadier-General Peter Devlin of Canada for six months as commander of ISAF's Kabul Multinational Brigade. Two weeks after, the International Security Assistance Force became a NATO mission focused on providing a security environment during the adaptation of the Afghan Constitution. As a result, the first free elections were held in 2004 (Presidential) and 2005 (National Assembly and Provincial Council) and represent a milestone in the development of Afghanistan's emerging democracy. The inauguration of Hamid Karzai as the President of the Islamic Republic of Afghanistan ended the first phase of Operation Athena – Kabul, and marked the beginning of the second phase – Kandahar. Since that moment, International Security Assistance Force extends its operation on a national level to support the reconstruction and development of Afghanistan and to assist the government efforts in training and increasing the Afghan National Army to a force of 70,000 by 2010.

Task Force Kandahar is a major Canadian contribution to the reconstruction process. Part of International Security Assistance Force Regional Command (South), based on Kandahar Airfield, it includes units supported by intelligence, communications and field security assets, operational mentor and liaison teams, a headquarters, maneuver units and a provincial reconstruction team. By promoting development and increasing security, the Kandahar Provincial Reconstruction Team support the Afghan government to implement local policies, foster reform initiative and support development projects such as the Dahla Dam and irrigation system, education in Kandahar province and eradication of polio.

Canada had defined six major objectives to help rebuild Afghanistan. The first four priorities, mostly concerning Kandahar,



stressed on the importance of supporting the Afghan National Army and Police in creating a security environment, support the local efforts in justice and corrections (for example Sarpoza prison), increase the management of Afghanistan-Pakistan border, create jobs, support the educational system and provide humanitarian assistance and essential services for the Afghans. On a national plan, Canada point out the importance of building strong political institutions, support democratic developments (such as 2004 democratic elections) and sustain the reconciliation process to obtain a sustainable peace in this region. Close to 50 percent of these funds will be designated to support these priorities.

Canada commitments on “War on terror” remain a strong proof in our effort to maintain and develop a secure worldwide community based on democratic values, human rights and economic cooperation. Operation Athena is an excellent example of our financial, military and logistic effort to help rebuild a failed state. These recent political developments show us our vulnerabilities and stress the importance of investing in new security strategies, home and abroad, designated to preserve our well-being.

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## **Integration of Work-life Issues with Respect to Female Employees**

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### **Abstract**

Work-life integration issue has become an agenda of board room meetings across the globe especially in India.

A working person has multiple roles to play at a time at personal as well as organizational fronts; each demanding different skills and anticipations. When such role demands overlap and get clashed, serious problems are faced by the employees. Moreover, in sales, the performance pressure is high leading to work stress reflected in personal life.

This research paper is an attempt to delve into the issue of work-life integration issues with reference to young women working as school teachers in private schools of Mumbai.

**Keywords:** work-life integration, female teachers, role demand, role clash

### **Introduction**

In India, the metro cities are always attracting large number of females for job. Mumbai is considered as the place with highest percentage of female employees in the country. However, life in a metro city is not so simple. One can get good compensation along with side

effects like: performance stress, long working hours, wear outs and other problems. Females have successfully entered and made inroads into all the sectors once considered reserved for males. They are at times more successful than their male counterparts at all levels whether it is executive, middle level management or higher levels. This trend has been prominently increasing in metros of India since last decade. Whether bachelor or married, female employees are creating big landmarks of achievement. This may be attributed largely due to their dedication towards work.

A working person has two roles to play- organizational and personal roles. In Indian context, where social life has a great impact on one's performance, balancing of these roles has much relevance. Along with the role of an employee, an individual has to play the role(s) of a son/daughter, husband/wife, father/mother, friend etc. Due to organizational and personal level stress, role clashes are common that cause performance deficiency. This stress percolates into social and family life as well. Role clashes can also be caused by the reverse impact i.e. personal life stress affecting job performance. This stress results into burnout and work-life imbalance leading to losses for all i.e. the individual, the organisation and the society. Work-life balance is a state where an individual manages real or potential conflict between different demands on his or her time and energy in a way that satisfies his or her needs for well-being and self-fulfillment (Clutterbuck, 2003).

Life in metropolitan cities is far busy and hectic than other cities. The trend of nuclear families with double-income couple is increasing at faster rate. Double-income-no-kid couples are not more common. Work-life balance is about developing working practices that benefit both businesses and their employees (Coussey, 2000). Work-life balance can be represented with the help of two spheres indicating two lives: organisational and personal life having regular interaction between two spheres. The organisational and personal life of an employee can not be isolated. When organisational stress starts encroaching into personal life sphere and vice-versa, serious problems are faced.

There has to be equilibrium between professional and personal lives. The achievement of better work-life balance can yield dividends for employers in terms of having a more motivated, productive and less stressed workforce that feels valued; attracting a wider range of candidates; increased productivity and reduced absenteeism; gaining the reputation of being an employer of choice; retaining valued employees;

achieving reduced costs and maximizing the available labour (Byrne, 2005: 58). With Indian context, the study of work-life integration becomes important from organization point of view.

### **Literature Review**

This section shows a brief review of the existing research work conducted in this area. Crooker et al. (2002) have studied the relationship between life complexity and dynamism that affect work-life balance. The authors have explained individual value systems on the relationship between life complexity and work-life balance. Guest (2002) has explored the reasons why work-life balance has become an important topic for research and policy in some countries especially European countries. McDowell (2004) has elaborated the ways in which organizations and institutions operate at a range of spatial scales as well as new sets of responsibilities towards co-workers, members of households and the public.

Byrne (2005) has highlighted the concept of the work-life balance as a means of tackling the problem of increasing amounts of stress in the work-place. Morris and Madsen (2007) have shown the importance of work-life balance. By better understanding work-life theory, HR professionals can contribute to the strategic development of policies, practices, programs and interventions. Moore (2007) conducted a research to compare work-life balance issues workers and managers of an MNC. It was concluded that many of the managers are not able to achieve work-life balance.

In a research, Hughes and Bozionelos (2007) observed that work-life imbalance was not only a source of concern, but also that it was the major source of dissatisfaction for participants. To establish and illustrate the levels of awareness of work-life balance policies within the surveying profession in Australia and New Zealand, Wilkinson (2008) conducted a research. It was concluded that the consequences of an imbalance between work and personal or family life is emotional exhaustion, cynicism and burnout.

### **Research Objectives**

In this empirical study, the major issues pertaining to work-life integration have been delved into from the view point of working female teachers in Mumbai. The objectives of research are as follows:

1. To study the work-life integration issues with reference to females working as school teachers.
2. To determine the factors affecting work-life integration of such employees.
3. To find the factors leading to work-life imbalance.
4. To suggest the measures for effective work-life integration.

### **Methodology**

**Sampling:** It was a study conducted to explore the work-life integration issues with reference to females working as school teachers in English medium private owned primary schools of Mumbai. There were 250 respondents chosen in the age group of 21-32 years, who were married but having no kids.

**Tools for data collection:** Secondary data were collected from sources like- Internet, books, newspapers, management journals and business magazines. For primary data collection, a self-administered five-point scale questionnaire containing 21 statements was used. Likert's five-point scale of agreement was applied where the respondents have to tick one choice ranging from strongly disagree to strongly agree. The data after collection was tabulated in Excel sheet and analyzed by using z-test.

### **Hypotheses**

Null hypotheses were framed and tested for significance to prove the objectives systematically. The null hypotheses were as follows:

H<sub>01</sub> – There is no significant impact of nature of job on work-life integration with respect to female school teachers.

H<sub>02</sub> – There is no significant impact of work-life integration on overall performance of individuals.

The above null hypotheses were tested and results were drawn.

### **Results and Discussions**

On application of z-test, both the null hypotheses were rejected at 0.05 level of significance as shown in the table no 1. It can be concluded that there is significant impact of nature of job on work-life integration with respect to female teachers in Mumbai. Similarly, there is significant impact of work-life integration on overall performance of employees. The nature of job has a vital role to play in terms of work-life integration proposition. Jobs like teaching are preferred by females where they can perform well along with creating balance over personal

lives. However, with increasing compensation package of teachers in metro cities, the expectations are increasing in manifold ways. Merely teaching the students does not constitute the job profile of a school teacher. Result-oriented performance is the key for appraisal. It can be seen that work-life imbalance issue is troubling the female teachers as well due to higher expectations of society.

**Table 1: Result of hypotheses testing by z-test**

S. N.	Statement	Calculated value of z	Result
H <sub>01</sub>	There is no significant impact of nature of job on work-life integration with respect to female school teachers.	2.012	H <sub>01</sub> rejected
H <sub>02</sub>	There is no significant impact of work-life integration on overall performance of individuals.	2.467	H <sub>02</sub> rejected

### **Conclusion and Implications**

The study has significant implications for school promoters as well as society in particular. Due to increasing expectations of parents and schools, the lives of school teachers have become more hectic now. Imbalance in work-life causes high employee turnover leading to frequent job hopping. While interacting with the respondents, many of the teachers have now started comparing their jobs with corporate jobs. Some of them conveyed their intentions to quit the job of teaching and join corporate jobs for better package. This is the high time when employers must try to strike work-life balance for the well being of their employees. When employees go back to their homes, they should not carry any organizational related stress with them. Ensure equilibrium between professional and personal life is the need of the hour.

The attitude of colleagues and managers to working parents' responsibilities is of critical importance to their work satisfaction and, in the case of women, to their overall well-being (Davis et al, 2004: 209). If proper balance is maintained in professional and personal lives, employees can do great wonders.

Much work has to be done in this direction. Many organizations have started working on flexible working hours, family get-togethers, time-off and other similar measures. In a nutshell, there should be humanistic way of managing performance of employees. Work-life balance policies are beneficial for individuals, their families,



organisations, and society (Brough et al, 2008: 272). Work-life balance is the key to personal and professional effectiveness in the long run.

This study was confined to female teachers employed in private schools at primary level in Mumbai. The findings of study should not be generalized for other segments of the same profession. The results may differ in case of government school teachers. Further studies can be carried out on large sample and gender-based comparative studies can be done. Significant efforts should be increased by the organizations towards making work-life integration more productive for individuals, organisation and the nation as a whole.

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## **The Processes of Location Study for Developing Economic Zones under Public Private Partnership Model: Country Study on Bangladesh**

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### **Abstract**

In spite of the complexity in defining the boundary, the concept of Economic Zones (EZ) has been evolved as a way forward for the government of the developing countries for enhancing the national trade. Similarly the recent phenomenon of widespread Public Private Partnership (PPP) practices especially in infrastructure sector is also providing a window to develop many of such economic zones through PPP model as EZ typically is capital intensive. Bangladesh has discrete success both under PPP and EZ regime. However, developing EZ under PPP model has few commercial complexities as both the public and private sector need to bear some roles and obligations one of which is selection of appropriate location for EZ development. The location study for PPP EZ development therefore receives paramount attention both from developer and lenders perspective. Such location study generally is not typical project site study by nature; rather it is more economic concentrated. This paper will try to identify the factors that are essential to consider for conducting these location studies based on the examples of Bangladesh. The paper will also identify the appropriate

methods and approaches required for successful EZ development through PPP.

**Keywords:** Economic Zone, Location Study, Public Private Partnership, Infrastructure, Bangladesh

### **Introduction**

A nation's export competitiveness can be achieved through its trade (Nihon, 2005), development of infrastructure, and opportunities of special economic privileges- lower taxes and rebate to a liberalized economy. As country-wide development of infrastructure is expensive and implementation of structural reforms requires time due to various socio-economic and political realities, Export Processing Zones (EPZs) are considered a strategic tool for promotion of exports (Mondal, 2001). In order to promote export competitiveness, economic zones have emerged as a trade policy with special emphasis on outward orientation. At the same time, economic zone also boost up inward industrial growth. Areas with special economic privilege i.e. lower taxes and rebates have been common since 16<sup>th</sup> century but it did not impact the world trade. After 1960, impact of these specific areas became prominent in the world trade and gained special terminology as Economic Zones or EZ (Guangwen, 2003). Now Economic zones are considered as a powerful tool for integration with world economy.

Policymakers must be aware of the fact while economic zones bring about economic growth; they are not limited within themselves. Economic zones generate investment, employment, exports, and help to gain cost reductions from scale economies. The real value of economic zones depends on their ability to stimulate widespread growth through linkages with the domestic economy and to catalyze nationwide reforms by offering an opportunity for pilots.

Comparing benefits to countries with export zones to those without, there are about 102 countries with export zones and 126 countries which do not have them, they can be compared on economic parameters like export growth rate, market share etc. Countries with zones, gained market share to 75% while those without zones fell to 25% (Bolin, 2007) indicates that countries are adopting economic zones as a competitive strategy for growth, development and to achieve trade competitiveness globally.

Taking the case of Bangladesh, the Export Processing Zones (EPZs) have been relatively successful in addressing some of the key

competitiveness issues facing foreign and domestic producers operating in Bangladesh. EPZs provide serviced land, reliable infrastructure, adequate logistics, and an authority which attends to the needs of the zone's tenants. However, the current EPZ model has its limits in terms of cumulative impact on growth prospects since the few EPZs in operation provide little in the way of linkages with, and spillovers to, the economy as a whole and they have been built, owned and operated exclusively by the public sector with increasingly limited resources. The Public sector entity like BEPZA exclusively develops and operates such export oriented zones except that of KEPZ. But essentially EPZ's are completely export oriented with almost no consideration about the domestic market. This is where the Economic Zone (EZ) plays one of the most vital roles. An economic zone allows the tenants to go for both export and meet domestic demand.

Drawing from numerous examples of successful Economic Zones (EZs) around the world as well as Bangladesh's own experience with the existing EPZ, the Government of Bangladesh (GoB) is acutely aware of the potential direct and indirect impacts that could be realized by scaling up to a more modern, generalized regime for EZs as a tool for sustainable and globally competitive economic development. The GoB, in order to realize the EZ potential, has launched an effort to develop a new EZ policy regime for Bangladesh based on good economic and social practices in their operation and commercial principals in their development and management. This research will identify the way of location study for identifying and developing new economic zones in the country with concentrating on a special type of ownership criteria, Public Private Partnership.

### **PPP Model for Developing EZs in Bangladesh**

"PPP" means Public-Private-Partnership in which Government engages the private sector through a strong contractual framework, to carry out investment and/or management of certain infrastructure services. In this type, Economic Zones Developed through PPP, a Government agency plans, carries out feasibility study, acquires land, obtains consents & approvals, and transfers the further development and management of the zone to a private individual, group, company or group, whether local or foreign or Non-resident Bangladeshis through (a) a transparent PPP tendering process for a Zone Developer like development of the first ever High-Tech Park in Bangladesh being

executed by Bangladesh Computer Council under Ministry of Science, Information and Communication Technology, (b) a Recognized Industry Association like EZ for BGMEA or EZ for BAPI through a negotiated process. The extent of participation of GoB in this new EZ policy regime will be from the front-end activities up to the award to the Zone Developer or Recognized Industry Association. Any aspect of economic zone infrastructure or services will be eligible for PPP.

The Private Sector Development Support Project (PSDSP) is a multi donor project has supported the creation of a newly launched technical assistance fund called the Bangladesh Investment Climate Fund (BICF) as a separate entity, managed by IFC. As one of its central activities, BICF has embarked on a program of support to the GoB to develop and implement a new EZ regime with an emphasis on a greater role for the private sector in zone development, service delivery and operation. In parallel the BICF will be supporting the development of prototype PPP models for both overall zone development and operation and provision of specific services in order to assist in developing the specific PPP arrangements for the investment sub-projects to be funded by the PSDSP.

The Government of Bangladesh has already identified few locations to develop economic zones through PPP. BCC under MOSICT is in the process of developing a high-tech park (EZ) and has already acquired 232 acres of land at Kaliakor in Gazipur district. The Comilla EPZ is located in the Comilla old airport area, 167 kilometers from Chittagong port and 97 kilometers from Dhaka. The area of the existing Comilla EPZ is 258 acres and another 478 acres has been proposed for the extension through PPP being implemented by BEPZA. Project sites for the RMG and the API Industrial Park have been selected at Bausia in Gazaria thana of Munshigong district in consultation with Bangladesh Garment Manufactures and Exports Association (BGMEA) and Bangladesh Association of Pharmaceutical Industries (BAPI), the trade associations which represent the prime tenants for these two proposed EZs. These two proposed economic zones will be implemented by BSCIC. The industrial park for BAPI has already been approved by ECNEC and an amount of fund has been allocated for developing the site.

This PPP-Based Development Track is of essential importance to the development of economic zones in Bangladesh. The focus of the new zones strategy should be to develop new and larger zones in

locations chosen based on demand and feasibility assessments, under a liberalized framework where different types of industrial activities can coexist under established land use criteria, and with a higher level of infrastructure and value added services developed by the private sector and offered to tenants on commercial principles. The “hybrid” nature of this Track speaks of the co-existence of industrial activity geared towards the domestic market as well as a free zone area within the same property. By removing export barriers and allowing unhindered sales to the domestic market on a duty-paid basis, there will be greater integration of economic zones with the broader economy. The Government’s main role would be to regulate economic zone activities, promote the zone regime, and aggressively identify, assemble, and make available land suitable for industrial development through PPPs.

### **Factors of Location Study for EZs**

Government of Bangladesh in its initiative to develop an economic zone regime in the country as realized through its adaptation of EZ policy and the subsequent EZ ordinance provides emphasize on the importance of selecting suitable location for developing potential economic zones in the country. EZ as specialized locations has been found to be efficient in business process especially that dealing with large volume of business transactions and facilities through advanced infrastructure and other facilities to enhance trade competitiveness within and outside of the country. Earlier industrial concepts largely considered the broader guidelines and framework analysis that happened in different parts of India while establishing industrial parks especially with IT industries that does not require much concentration on site specific analysis. Here the location and spatial diversification were simply determined by an adjustment between location and weight distance characteristics of inputs and outputs (Weber, 1929). But recently it has been observed as numbers of exclusive experiences have been evidenced that selecting appropriate location is most critical for success of any particular zone.

As mentioned, global experiences realized through number of developers competing for an economic zone in PPP highlighted location decisions of firms an important strategic decision depending on several factors. Various recent empirical research and literature suggests that location can be a contributing factor to the competitiveness of a firm (Karakaya & Canel, 1998). Empirical studies suggest that EZ’s located

in developed areas have higher chances of pursuing agglomeration and more successful compared to those which are located in semi or undeveloped areas (IDFC, 2001). These results out the importance of agglomeration and linkage effect as well as overall market analysis of the economic zones more critical to utilize if EZ's are established in comparatively lower level adjustment in terms of location criterions.

Empirical studies on the location of a firm have brought out list of factors which can be summarized and inferred upon. Schemenner (1979, 1982), Galbraith (1985, 1990), and Galbraith and Galbraith (1988) encompasses availability and proximity to other industries and supplier/resources in the region which leads to forming of business transaction as decider of location of a firm.

Fulton (1971), Schemenner (1979), Blair and Premus (1987), Schemenner et al. (1987), Galbraith and De Noble (1988), Hekman (1992), De Noble and Galbraith (1992), Stonebraker and Leong (1994) focused on area's business climate, attitude of local and state government, state and local government incentives, transportation costs and facilities, proximity to highways, availability of utilities and services, tax structure and rates, local and physical infrastructure, availability of infrastructure etc.

Fulton (1971), Schemenner (1979, 1982), Hack (1984), Galbraith (1985, 1990), Schemenner et al. (1987), Blair and Premus (1987), Galbraith and De Noble (1988), Karakaya and Stahl (1989), Hekman (1992), De Noble and Galbraith (1992), Stonebraker and Leong (1994) emphasized on labor productivity and attitude toward productivity, cost of labor, availability of labor, availability of skilled labor, availability of unskilled labor, availability and transfer of qualified technical and managerial personnel, land availability for building and expansion, cost of land, cost of construction, financing opportunities, banking services, and access to raw materials, that means availability and quality of men, machine, money, material including land- which are traditionally considered as the factors of production in economic literature.

From the findings and suggestions of various literatures, proximity to supplier/resources, availability of infrastructure, tax-concession, govt. and institutional support and quality and availability of men, machine, money, and material are the important factors affecting the location of a firm. It is important to understand that the number of EZs that will be developed in the country strictly depends on



the availability of land and its potentiality for establishing an economic zone. So, more the number of potential locations mean more the possibility for having such zones in the country.

### **The Way of Conducting Location Study for EZs**

In general the overall methodology for selecting a site and conducting location study on it can be divided largely by the following activities.

#### **Step-1: Identification of Broader Area (Upazilas) for Site Selection**

The upazilas should be selected based on the overall infrastructure facility, connectivity, level of service availability including the utility services, and industrial activity. However, availability of the raw materials and labor force also acts as critical factor for selecting specific upazila. More specifically, an appropriate location should be in those areas where the road and/or river communication network, electricity, gas/fuel supply for wholesale, industrial and domestic use, regional connectivity, proximity to a township or a commercial hub, city or metropolitan, existing industrial activity in the vicinity etc are available. However, other specific issues need to be considered, such as, access to markets, type of currently available industry, number of available industrial area, mineral resources availability, unemployment rate, total land area, total road area as % of total land area, Pakka road area, road and rail connectivity, distance from Zila headquarter, number of available ports- land port, river port, air port etc.

#### **Step-2: Primary Selection of Sites for Location Study**

Based on the minimum required land area (in Bangladesh it is 25 acres), some sites have to be identified from the selected upazilas. However, in Bangladesh, the site would not be within 20 kilometer radius of Dhaka and Chittagong cities, within 10 km radius of divisional headquarters, and 7 km of district headquarters.<sup>1</sup> This is expected to be an exhaustive list and will not include detailed analysis for site selection. More sites should be planned to be included in this list to conduct the detailed location studies. However, a screening mechanism can be applied to shorten the list based on the site specific location

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<sup>1</sup> Draft copy of "Bangladesh Economic Zones Policy 2008".

criteria as mentioned in the next section, if the list is found to have vast number of potential sites based on the primary selection.

The list needs be prepared based on the site visit within the upazila. However, interviews and visit to the local land authority will be helpful to identify the primary sites. The specific activities may include but not limited to the following:

- Visit LGED for overall and detailed upazila Map
- Visit local land authority for the same
- Interview the officials of local land authority
- Interview other relevant officials like T.N.O, commissioner (Ac Land), chairman, and local people
- Identify the areas for site selection within the upazila (an exhaustive and detailed list)
- Visit the area and primary selection of sites for location study

For successful analysis and for proper information, the approval process and cooperation should be ensured and streamlined especially for the local authorities like T.N.O, commissioner (Ac Land), chairman, etc.

### **Step-3: Conducting Location Studies on Selected Sites**

A similar approach as explained above has to be adopted for carrying out the location study of selected sites. The area of the land needs to measure and also to understand the nature and type of the land along with the adjacent area. The specific site related study may include to the following:

*Study of site location:* The identified site should be studied with respect to:

- Physical features
- Land Valuation
- Location with respect to other magnets like major shopping zones, commercial zones, prime residential areas etc.
- Accessibility and connectivity linkages.
- Land utilization and economic activities in the neighborhood.

*Location Analysis of the Site:* This site specific location analysis must include the following:

- Position and Land Mark of the Proposed Site

- Salient Features of the proposed site:
  - Approach road connecting the major distributor highway
  - Tentative length and width of the Approach road
  - The main rail line
  - Any feeder road along with the measurement
  - Any settlements in the land and relevant description
  - Availability of river communication network
  - Regional connectivity, proximity to a township or a commercial hub
- Other Observations:
  - Whether any irregular undulation in the site
  - Whether any of landfill is required and if an, the approximate amount for land filling
  - Study on Adjacent area
  - Whether there is any resettlement issue exist
  - Overall other observation and suggestions

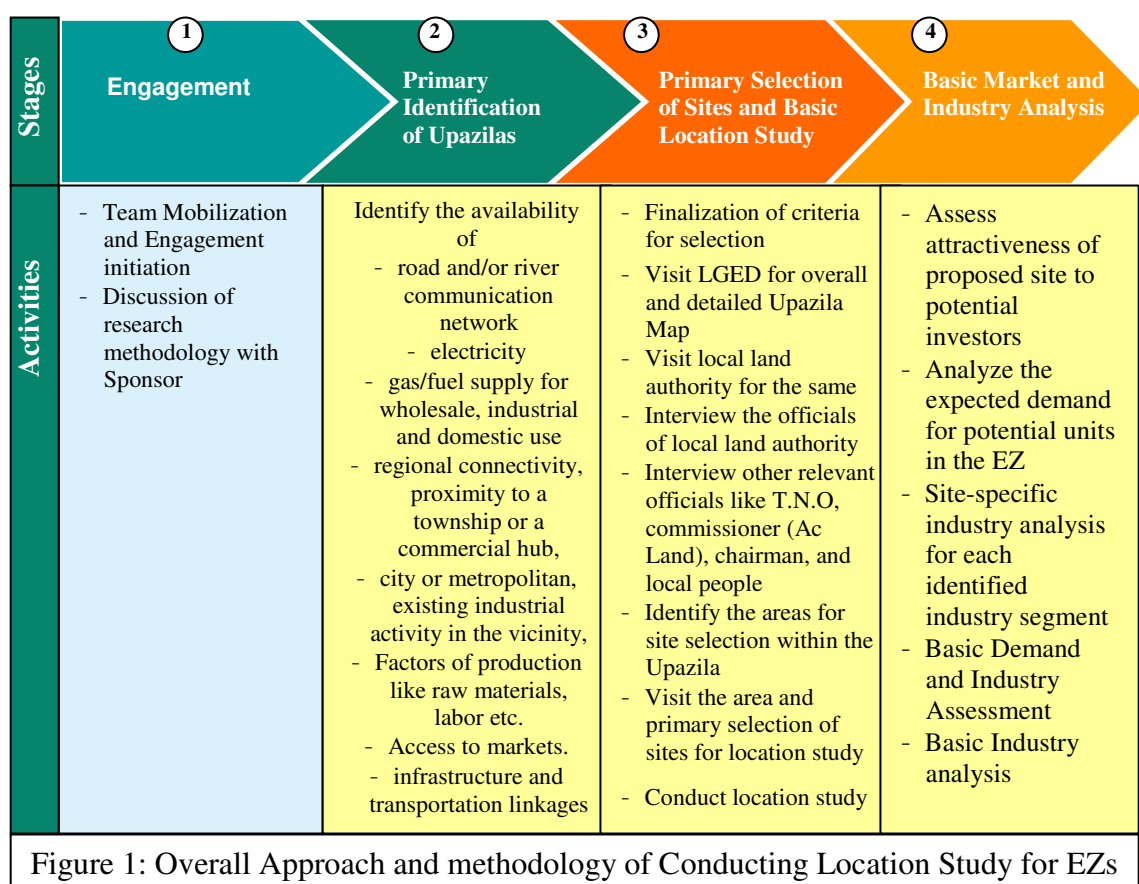
#### **Step-4: Conducting Basic Market study as a part of location study**

The purposes of the basic market study are to review the commercial issue- a review of commercial trends to assess the potential of the proposed site, and investors' issue- assessment of demand and analysis of the industry and relevant market. The demand assessment study would be critical in terms of feasibility of a site. Under a location study, some basic demand assessment can be carried out through assess attractiveness of proposed site to potential investors, analyze the expected return for potential units in the EZ, site-specific industry analysis for each identified industry segment, and basic industry analysis.

Under the basic industry and market analysis, the information on the following issues to be collected to understand the nature of the market and industry adjacent to the specific selected site:

- Type and nature of Industrial area adjacent to the site
- Size of the individual and overall industries
- Scope for new types of industries
- Types of raw materials and inputs available in the location
- Type of import and export in the vicinity

- Land purchase and development Cost
- Demographic features of the locality
- Basic economic activities and living standard of the area
- Level of Employment, availability, nature-skilled/unskilled, and cost of Labor
- Nature of infrastructure facilities to nearby market and industrial hub
- Any special feature if any related to the site referring to the market and industry like existence of government facility or decisions or any planned industrial activity etc.
- Availability of utility and other services etc



### **Conclusion**

Bangladesh has good experiences about EPZ but currently there is no economic zone in the country. Few economic zones are under process and very few location studies are going on in major districts of Dhaka, Chittagong, and Sylhet Divisions. To reduce the regional disparity, Zila wise study of potential locations for EZs is essential. Moreover, to protect the urbanization and income inequality, upazila level location study for EZs is very important. Initial screening for EZs in Bangladesh through location study will be helpful to prepare a long list of potential sites so that a long term plan with feasible types of developing modality for EZs will be easy to prepare by the policy makers.

After finalizing the sites, selecting through location study, it should be categorized separately based on size of the area, type and nature of land, offside infrastructure facilities, availability of inputs, labor and its nature, local market structure/ specific economic condition, and types of possible industry to setup in the area. The separate list and separate valuation is required, because the potential weight of these factors differs to the ownership model of EZs. If the EZ is developed by PPP model any of these hinders can be solved easily, which may not possible through only public or only private sector. So, only preparing a common list through indexing or ranking of sites is not suitable at all. However, categorization of sites - most potential sites, moderately potential sites, and less potential sites- can be considered as a valuable source for the government, private sector or the donor community who are actively pursuing to establish the economic zones regime in the country.

In Bangladesh, the PPP model acts as a significant catalyst for establishing successful Economic Zones where adjacent developing utility services, especially power and gas supplies, access to infrastructure and transportation linkages are not suitable for private sector. Typically for infrastructure development, like economic zones might require government involvement not only in the form of subsidy or other assistance but also for regulatory issue. In economic zones development, through the PPP model, some significant infrastructure development like land filling etc. including offside infrastructure facilities can be developed resulting more viability for establishing EZ regime in the country.

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## **Sustainability in the Agricultural sector of some EU countries**

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### **Abstract**

The present study will examine the possible ways of integrating sustainability indicators in assessing the performance of agriculture. We are examining the appropriate ways of calculating the output of the sector including the damages caused by and the benefits of agricultural production. The involvement of environmental pressure into the assessment of agricultural performance does not show significant changes in values.

**Keywords:** performance of agriculture, environmental pressure, sustainability

### **Introduction**

Evaluating the results of agriculture is still of considerable importance, although the sector's contribution to GDP in developed regions is only 1-3%. However, feeding the population is of strategic importance. In consumption, food is of very high importance (15-20%), furthermore, the sector is a targeted area by large amounts of state and community (EU) grants and agricultural products represent a major proportion in foreign trade in many developed countries. We believe that two phenomena play a further role in shaping the central importance of agriculture:

a) while technical development tailors and dematerializes products and services to a large extent, it is less likely in food products, consequently further contraction in the sector is not anticipated;



b) a broader interpretation of the sector (multifunctional agriculture) opens two new dimensions: the environment and thus health and economic burden on the negative side (sustainability), whereas the appearance of new activities on the positive side (e.g. rural development, etc.). The former one means that we recognise and understand that agricultural activities have serious external effects, and on the other hand we recognise that agriculture holds previously neglected opportunities like alleviating employment, health or social problems.

In modern agriculture and among the objectives of the CAP, multifunctionality, rural development, the protection of the environment and sustainability are in the focus of attention, therefore, our earlier researches are extended by the examination of some factors influencing the state of the environment.

The main focus of this paper is on a new methodology with which we endeavoured to evaluate the relationship between the factors determining agricultural production and the output of the sector, and to assess performance when environmental indicators were included, and finally attempts are made to interpret these results.

In our recent researches we were investigating the potential methods for modelling the performance of agricultural sectors. First, a metric system was created followed by a test of its applicability in a comparative analysis of the agricultural performance of Denmark and Hungary. Second, an agricultural production function was applied to determine the potential and real output of the sector.

In this paper our research has been extended, a few indicators that represent the external impacts of agricultural production, i.e. indicators that express environmental pressure were taken into consideration. Environmental pressure and pollution as a consequence of agricultural activity has become an economic issue and significantly affects the sector's performance. The involvement of the new indicators - especially of the ones that express environmental pressure - is vital, because, as Stiglitz puts it, the attempt to revitalize the world economy, together with answers to be given to global climate crises, raises the question whether the traditional statistical metrics could give a proper indication of further action. In other words, the per capita GDP figure as a development indicator is questionable, since social and environmental concerns do not appear in it. The maintenance of competitiveness together with EU expectations requires the observation

of the principle of sustainability. In the European Union the main goal of the CAP reform is to provide an ever increasing proportion of the subsidies to rural development and most importantly to environmental protection.

### **Material and Methods**

In our research an attempt was made to develop a method with which the comparison of the outputs and inputs are possible, where inputs include social and cultural factors as well. We did not intend to measure productivity. Our aim was to determine in which country is the difference further from the potential output levels.

By applying the metric system, the performance of Denmark and Hungary's agricultural sector was compared and Danish agriculture proved to be a bit more efficient, which means that taking the higher amount of resources (inputs), the better circumstances and the higher level of management into consideration, Denmark achieved higher outputs. The results can be explained by the difference in the level of invested capital, the high" input efforts (high capital stock, major investments, advanced technology or a dense infrastructure) and the institutions that are functioning much better.

By applying Cobb-Douglas agricultural production functions, we studied two groups of 12 EU countries and we found that during the period 1999-2009 the real output levels were almost equal to the potential output levels in the 6 Central-East European countries whereas the performance of the group of 6 Western European countries was below their potential output levels.

### **Literature review**

First, the relevant literature was reviewed and then the current knowledge on how to measure the performance of the sector was summarized. The basis of early researches was largely the simplest Cobb-Douglas production function where the dependent variable is the gross output or value added, while the independent variables are land, labour and capital. Later, more complex functions were developed, (fertilizer use, irrigation and other purchased services were taken into account), then a few decades ago, the impact of institutional economics appeared, and this is a particularly important aspect of our research.

Applying functions in agricultural production analysis started in 1944, firstly by Tintner and Brownlee, then by Heady. Estimates on

agricultural productivity (TFP) were first published in the United States by Barton and Cooper (1948), and Cooper, Barton, and Brodell (1947). To compare performance, value-added or productivity was studied. Productivity is defined as the difference between growth rates of input or as the ratio of output and input. Bhattacharjee studied the performance of agriculture in selected countries. He compared the 1955 performance of 22 countries, where the inputs considered were only land, labour, and fertilizers (Bhattacharjee, 1955).

Bombach and Paige (1959) were the first to apply more determinant factors, and many followed their example, *inter alia*, Hayami, and Ruttan (1970), Evens and Kislev (1975), Mundlak and Hellinghausen (1982), Antle (1983), Rao (1986, 1992), Chavas (2001), who took other factors (such as buildings, machinery, live animals, crops and infrastructure) into account. Non-agricultural inputs (energy, pesticides) and the use of non-agricultural services (maintenance of machinery, rental of real estate, administrative, veterinary, insurance services), also formed part of the model in Maddison (1970), in Maddison and Ooststroom (1993) or in Maddison and Rao (1996).

The recognition of the influential role and measurability of human capital was first present in the works of Hayami and Ruttan (1970), and later became an integral part of the analysis in Nguyen (1979), Yamada and Ruttan (1980) and Ruttan (2002). Some of the most important authors in the U.S. methodology are Kendrick and Grossman (1980), Jorgenson, Gollop and Fraumeni (1987), Ball, Bureau, Nehring and Sumwaru (1997), and Ball, Bureau, Butault and Nehring (2001). In the USDA analysis the inputs are land, labor, capital, fertilizers, pesticides, seeds, live animals, feed and energy.

In the methodology, applied (agricultural) technology appeared in the early and mid-90s, further details are in Crego, Larson, Butzer and Mundlak (1998). According to Mundlak the technology applied is determined by state variables like the scarcity of resources, price ratios, physical environment, or available technologies (Mundlak, 2000).

The results of institutional economics, described in detail in Glaeser, La Porta, Lopez-de-Silanes, Schleifer (2004), were embedded in the examination of the performance of agriculture a few decades ago. Over the past 50 years applied analysis together with statistical and mathematical methods became highly sophisticated. Now the Malmquist index is commonly used, for further reference see Coelli

and Rao (2003), Bureau, Färe and Grosskopf (1995), Suhariyanto and Thirtle (2001), and RungsuriyawiboonLissitsa (2006a, 2006b).

One of the most comprehensive Hungarian studies of the discipline was done by Szűcs and Farkas, (Szűcs - Farkas, 2008). Many other researchers dealt with the measurement of domestic agricultural efficiency, including Nemessályi (1988), Baráth (2006), Lámfalusi (2005), with the competitiveness of Hungarian agriculture (Kiss, Judit, Udovecz Gábor, Csáki Csaba, Somai Miklós, Jávör András). TFP measurement using the Malmquist index was thoroughly dealt with by Farkas, Szűcs and Varga (2009).

### Results and Discussion

**A.** Following a careful study of the scientific literature on measuring the efficiency, and based on Mundlak's study we designed a model with which we endeavoured to measure efficiency. Considering the results of Rao and Acemoglu, much attention was paid to the role of the growth-enhancing institutions, since we are convinced that the institutions have a major impact on production, on the incentive system and consequently on profitability and growth. The efficiency of the two countries was compared with the help of a seven category metric system in which a time series of 20 years was taken into account.

*Factors used for measuring the efficiency of Danish and Hungarian agriculture*

The **output** was calculated by the sectoral output expressed as gross output at constant prices (Eurostat data).

**1.** Four **input** groups were applied:

**a) land** - arable land and utilized agricultural area, croplands and pasture in hectares (FAO and Eurostat)

**b) capital** - on agricultural capital sufficient amount of reliable data and time series are not available therefore, estimates are given based on several sources (machinery, equipment (tractors at basic price, FAO; harvesting machinery, milking machines FAOSTAT, animal stock Eurostat)

**c) labour force** - only active workers employed in agriculture, the number of hours worked (AWU) (Eurostat)

**d) quantity of chemicals used** - fertilizers and 5 pesticides (organic phosphates, herbicides, insects, fungicides and bactericides), the volume of mineral oils, FAO).

**2. Technological** indicators that represent the level of technological development in a given country :

**a) R & D expenditure** - total expenditure on R&D as percentage of GDP (OECD, Eurostat and Danmarks Grundforskningsfond data).

**b) agricultural yields** – wheat yields, milk pre cow production, number of piglets per sow, eggs per laying hens (FAO, CSO, Dansk Landbrugsr adgivning Landscentret data)

**c) animal density** – number of animals per area, head/km<sup>2</sup> · FAO and Eurostat

**3. Cultural** factors: According to Weber, Fukuyama, and Mundlak, efficiency is determined by the quality of human capital and the behavioural patterns.

**a) religion** - the proportion of Protestants. Since we accepted Weber's view on protestant ethics, in our calculation we applied the **proportion of protestants** among all the religious population (CIA World Factbook), furthermore, based on the data of the World Value Survey we included data on **being religious**, i.e. the number of people going to church once a week, or the number of people who are atheists, agnostic, non-believers, based on the 2005 Zuckerman reports 2005.

**b) education** - only graduates from tertiary education (Agriculture, forestry and fishery ) as the percentage of all graduates and the number of years spent in higher education (Eurostat)

**4. Infrastructure:** Mundlak examined the effects of quantifiable assets that have positive impact on productivity such as transport and communication infrastructure, health care, research and development or consultancy systems. In our study three branches of infrastructure were examined:

**a) transport infrastructure** - OECD and Eurostat figures, motorway density and density of railway lines

**b) communication network** - the proportion of households with home Internet access and phone subscriptions per 100 inhabitants, the duration of calls, Internet accessibility of households and companies (Eurostat and OECD)

**c) health infrastructure** - health expenditure as% of GDP measured in purchasing power parity per capita, life expectancy at birth, (WHO, OECD and Eurostat)

**5. Institutions:** According to Acemoglu, Johnson and Robinson (2001) in countries where the institutions are better, IP protection is stronger and policy distorts competition in a lesser extent. The value of

physical and human capital is higher and their use is more effective. That is, the physical, legal and regulatory framework has a positive impact on economic development. The influence of institutions was measured by the Freedom House political rights and civil liberty scores in Mundlak et al. The model was expanded and the following factors were involved:

**a) civil liberties and political rights** (Freedom House – scores of freedom of assembly and association law, functioning of the legal system and the government)

**b) the confidence in institutions** (parliament, judiciary, church, armed forces, police, social security, health care, civil services) European Values Survey and World Values Survey

**c) mutual trust** (Halman, The European Values Study).

**6. The physical environment** can not be ignored, as agricultural production is highly dependent on the natural environment, so we took the following actors into account:

**a) number of sunshine hours**

**b) water resources** – measured by the annual amount of precipitation (Statistical Yearbook 2009, KSH, Encyclopedia Britannica), and the amount of available freshwater (Eurostat).

Time series for the period between 1990 and 2007 were compiled for each of these factors, and then the averages for the period were compared (Danish data divided by Hungarian data). The weighted average of the ratios of the six main groups was compared to the gross output figures.

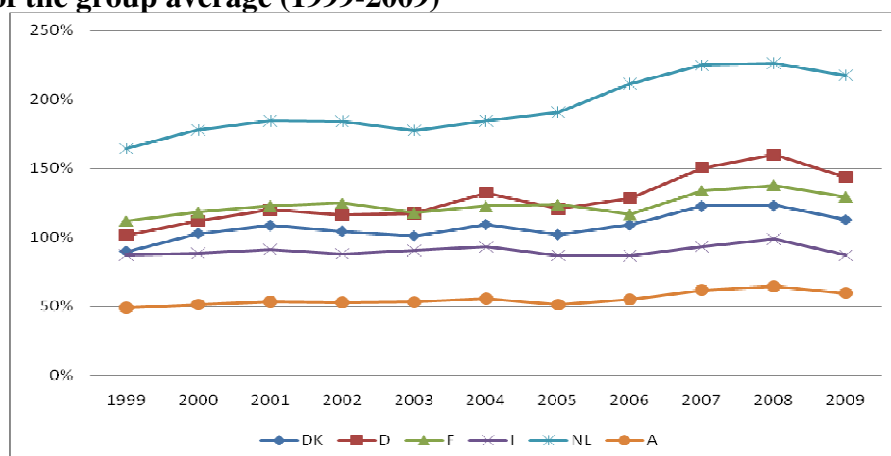
**B.** In the second step, the potential and real output paths were estimated by Cobb-Douglas type agricultural production functions with two independent variables (land and labour). Land is measured by the amount of Utilized Agricultural Areas (UAA) in hectares and labour was measured with Annual Work Units (AWU).

The values of constants were estimated by fitting the real terms logarithms of independent variables by two variables linear regression. The potential paths were estimated for 6 western and 6 eastern countries. With real labour input and utilized agricultural area figures we estimated the potential agricultural output ( $Y'$ ) of each Western European country by applying the constructed Western European production function. The potential output was compared to the real output ( $Y$ ). The same was applied to Eastern European countries then the ratio of  $Y/Y'$  was calculated. Finally, the average difference from

the potential output of the period was calculated then subcontinental averages were calculated and the performance of each countries were compared to them. Figures nr. 1 and 2 illustrate the results for the 12 countries.

**Figure nr. 1**

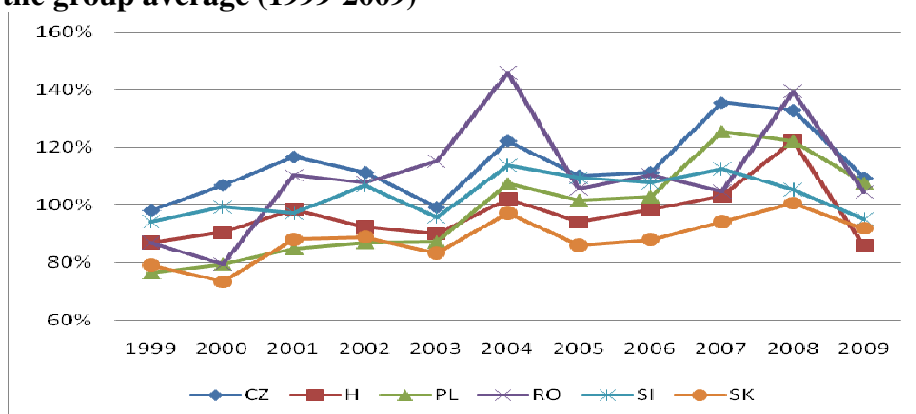
**The performance of 6 Western European countries as a percentage of the group average (1999-2009)**



*Source:* own compilation based on Eurostat figures

**Figure nr. 2**

**The performance of 6 East European countries as a percentage of the group average (1999-2009)**



*Source:* own compilation based on Eurostat figures

As for the Western European countries, the Netherlands exceeded the group average by almost 80%, Denmark was 9% less, and when the difference from the potential output was evaluated, the results for the Netherlands were almost twice as much. Denmark exceeded its own potential output level by only 8%.

In East European countries, the Czech Republic was 12% higher than the group average while Hungary was 5% less. Regarding the difference from the potential output, the Czech Republic was 14% higher while Hungary was 3% less.

C. In modern agriculture, and in particular in the developed countries, the attention is focused on the external impacts of production. The reason is that environmental pressure, the consequence of agricultural production, has appeared, become intense and well-measurable. Moreover, social tensions (rising unemployment, deepening of income disparities) have deepened as a consequence of a slowdown in economic growth rates and in particular in today's crisis. The changing structure of the economy is manifested in the growth rate of the expanding service sector in which rural areas have to find their place by the diversification of rural activities, such as by the development of tourism or by the maintenance of traditional rural activities and by maintaining the landscapes.

On the basis of the above mentioned, the earlier research (part A) was expanded, and the main focus was on the examination of environmental risks caused by agriculture. Furthermore, our aim was to examine whether the widely accepted view of Denmark's exceptionally high performance is true or only true in comparison to other countries having no similar features. An important modification is that only one year (2006) was studied instead of a time series of 20 years. Based on the methodology developed by the Americans (Ball, Lovell, Luu and Nehring, 2004), a number of selected indicators were applied which we believe that characterize the environmental damage caused by the agricultural sector.

#### **a) Nitrogene balance**

An indicator of nitrogene pressure from agricultural sources is the difference between the gross nitrogene/nutrient balance, that is the nitrogene input entering the soil by inorganic fertilizers, livestock manure, feedstuff, biological nitrogene fixation per hectare of utilized agricultural area, and the nitrogene use, that is the amount of nitrogene leaving the soil by harvested crops, harvested forage crops and weeds



(EAA 2007). Due to intensive livestock production and higher productivity, a marked increase in inorganic nitrogen and phosphate fertilizer use can be seen. The bigger amount of manure and the higher number of animals kept causes additional nitrogen pressure. In the European Union the pressure caused by total diffuse nitrogen was approximately 16.5 tons in 2003, 17.4 million tonnes in 1995 and almost 18 million tonnes in 1999.

In Europe the nitrogen input significantly exceeds the amount of nitrogen use. The difference between the input and output sides of the nitrogen circle is the so-called nitrogen surplus which damages the environment.

#### **b) Water contamination**

An important environmental impact factor is the deterioration of water quality resulting from agricultural activities. This is due to the leaching of nitrogen from inorganic and organic fertilizers used in the replenishment of soil into groundwater and surface water, to the salinisation process, as well as due to livestock manure (slurry poses the greatest risk), and to the leaching of heavy metals from sewage sludge into groundwaters (Czachesz – Fehér 2003).

The sources of water contamination are industrial activities, slurry and in particular agricultural activities. The direct damage from pollution (e.g. limited opportunities for the recovery of polluted waters) result from the lack of pre-cleaning process following the significant increase in water treatment costs).

Indirect losses linked to water pollution are the deterioration of the natural environment, the destruction of marine life, health hazards, recreation, sports facilities are of inferior quality due to the deterioration in water quality.

Water quality can be measured indirectly by the level of pollutant emissions (fertilizers, pesticides), or by the chemical analysis of water samples (EEA Report.). An Israeli researcher has developed a new method in which a laser beam illuminates the algae in water, and the researchers recorded the sound waves to reveal the type and extent of contamination.

#### **c) Water abstraction**

Agricultural water use greatly affects the environment. The main areas of agricultural water use are irrigation, fish farming and animal husbandry. Of these, irrigation and fish farming must be handled

together, mainly because they represent the abstraction of surface waters.

**d) Air pollution**

Agriculture is the third largest pollutant after Industry and transport. To measure air pollution the amount of greenhouse gas emissions was used.

**e) Waste generated in agriculture**

This includes manure from livestock farms, liquid manure, dead animals, vegetable waste, and waste generated in fishing and hunting. Waste indirectly cause air, water or soil contamination, stink or unpleasant visual aesthetic effects.

The model applied in the previous study (A) was slightly modified and a 7<sup>th</sup> factor was involved to elaborate a new metric system (here only the modifications are mentioned in brackets).

**1. Agricultural inputs:**

*a)* land, *b)* capital (only machines, equipment, tractors, harvesters, milking machines and animal stock, *c)* **labour** (only active worker involved in agriculture, the number of hours worked AWU), *d)* **quantity of chemicals used**

**2. Technological indicators:**

*a)* expenses on Research and Development, *b)* yields

**3. Cultural factors:**

*a)* **education** (only graduates from tertiary education as the percentage of all graduates)

**4. Infrastructure:**

*a)* **transport infrastructure**, *b)* **communication network** (the proportion of households with internet access and phone subscriptions per 100 inhabitants) *c)* **health infrastructure**

**5. Institutions:**

Only confidence in institutions

**6. The physical environment:**

*a)* **number of sunshine hours**, *b)* water resources (**precipitation** only), *c)* **temperature**

**7. Environmental pressure:**

*a)* **nitrogen balance** (OECD Factbook) kg nutrient/ha)

*b)* **water contamination** – fertiliser use /ha and amount of organic phosphates (Eurostat és FAO)

**c) water abstraction:** felszíni és felszín alatti édesvizek a rendelkezésre álló vízkészletek százalékában (Eurostat)

**d) air pollution:** greenhouse gas emission as a result of agricultural activities (per capita emission in CO<sub>2</sub> equivalent Eurostat)

**e) tonnes of waste** generated by agricultural activities (farming, fishing and hunting, Eurostat)

**f) animal density:** number of live animals (head/km<sup>2</sup>) (FAO and Eurostat), which pollutes the environment by excessive amount of livestock manure that contaminates waters and the soil, by stinking substances, dust, germs, ammonia (greenhouse gas) emission, and energy use

The results of our study are summarised in Table nr. 1. Religion was not considered since it distorted the results. The weights applied were: 0,1 0,1 0,3 0,05 0,4 0,05. Weights applied when environmental pressure was included were: 0,1 0, 1 0,3 0,05 0,35 0,05 0,05. The determinant factors are culture, infrastructure, technology, institutions, inputs, physical environment, and environmental pressure.

**Table nr. 1. Efficiency ratios in Denmark and Hungary (2006)**

Efficiency calculations	DK/HU
Efficiency ratios	1,07
Efficiency ratios with environmental pressure	1,04

**Source:** own compilation

When the performance of **Denmark and Hungary** is compared, Denmark shows a 7% higher result. However, when environmental pressure is taken into consideration Denmark's higher performance seems to be less considerable.

### Conclusion

The involvement of environmental pressure into the calculation does not result in significant changes in values. On this basis we are convinced that agricultural efficiency in Denmark and Hungary is less considerable in a regional comparison. Although exploitation of natural resources and pollution is a global issue that must be tackled, the need to integrate them into national accounts has not been proven in this context.

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## **J. Stiglitz's Contribution to the Grounding of Market Theory with Asymmetrical Information**

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### **Abstract**

This paper approaches a theme of actuality for the theory and practice of research from different fields of economical and social activities. In the first part, we present the phenomena associated to the asymmetrical distribution of information, with a focus on the contributions of G. Stigler, J. Mirrlees and W. Vickrey, as well as those of G. Akerlof and M. Spence. The second part of the paper insists on the theoretical evaluations involved by the functioning mechanisms of the market in the context of imperfect information, as they were theoretized by J. Stiglitz. The latter part of the paper highlights the possibilities of alternative information as opposed to the classical model of macro-economy and micro-economy, as well as the means of counteracting imperfect information form among the actors that operate on different segments of market economy.

**Keywords:** imperfect information, doubt, risk, decision making behavior.

### **Theoretical bench-marks of an explanatory model**

The importance of market theory with imperfect information was admitted by the international scientific community as early as 1982, when George Stigler, received the Nobel Prize for research in the field of information economy. Then, James Mirrlees and William Vickrey were laureate of the Nobel Prize in Economy in 1999 for their contribution in the study of the behavior of market actors in the conditions of asymmetrical information. Last but not least, in 2001, George Akerlof, Joseph Stiglitz and Michael Spence received the Nobel



Prize for the research of information imperfection at the level of micro-economy and macro-economy.

Underlying the thesis that information is a limited resource involving certain costs, the contributions of G. Stigler (1961) could be structured around the following ideas: the cost of informing economical agents about the prices offered by the other participants on the given market, the cost of searching time and its reference to the income of the given individual's income, the factors that determine the cost of searching activities (the spreading degree of the prices, the modification of the balance demand-offer in time, the value of the transactions etc), the cost of searching for information referring to the work force market, the amount of direct and indirect expenses for obtaining the information.

The studies conducted by J. Mirtlees and W. Vickrey (1999) highlighted the fact that the asymmetrical distribution of information in the case of market participants leads to modifications at the level of economic behavior in the way that the better informed individuals tend to strategically exploit this advantage. Hence, they focused their analysis, on the one hand, on the way in which the contracts and the functioning system of institutions can be conceived so as to face the problems connected to information asymmetry. On the other hand, their preoccupation focused on the consequences determined by information imperfection on the financial market, on the credit and social insurance system, as well as on the mechanisms of elaborating economical policies.

The novelty brought by G. Akerlof, J. Stiglitz and M. Spence (2001) consists in the fact that the thesis of information imperfection is analyzed at the micro and macro-economical level. While Akerlof insists upon the difficulties encountered by the macro-economical theory in explaining the persistence of involuntary unemployment, the effects of monetary economy on production and unemployment, the gap between the level of economy and that of retirement funds, Spence realizes that the prices have the capacity to provide relevant information according to the choices made by economic agents, and the better informed individuals can transmit credible signals to the less informed ones to avoid phenomena associated to adverse selection.

Before going further, I have to mention 3 of the phenomena typical to the market with asymmetrical information, which were theorized along 4 decades of research conducted by the above mentioned authors. I am referring to the cost of research (which

highlights the cost of research activities, it's implications upon dealing costs and the creation of an efficiency calculus of this activity on different segments of the market), adverse selection (a phenomenon reflected in the transactional process and that of choosing goods or services in the context of asymmetric information between the seller and the buyer) and the moral risk (a phenomenon which describes an individual's behavior after the finalization of a transaction and the impossibility of noticing the actions led by one of the two partners of the change).

### **The asymmetrical distribution of information and its consequences**

One of the most profound analyses referring to the asymmetrical distribution of information and its consequences on the different segments of the market can be found in Joseph Stiglitz's study *Information and the Change in the Paradigm in Economics*, published in 2002.

Stiglitz approaches a series of arguments in the favor of market theory with asymmetrical information, seen as an alternative to the model of traditional economy. Consequently, he states that the new current of the markets with asymmetrical information tries to identify the wrong premises which made the classical economical theory not to provide coherent explanations for certain economical processes and phenomena.

His comments first refer to the conception that economical phenomena could have a continuous variation and could be described with the help of a continuous function. The introduction of the hypothesis of asymmetrical information in the calculus determines a discontinuous variation of economical phenomena which are to happen, the probability of their production being characterized by a function of discrete repartition and not by a continuous one.

Secondly, the classical theory leaves the impression that each economical agent can solve the problem of maximization only by considering the existing variables. Reality proves that the information isn't equally distributed among the economical agents and that there can be situations when certain economical phenomena can't be mathematically modeled, thus leading to the impossibility of solving the problem of maximization.

Thirdly, Stiglitz thinks that the thesis according to which there can't be but a single point of equilibrium between offer and demand is

far from reality, because „even a small doses of information imperfection can have a profound impact upon the nature of equilibrium” (2002, p. 484). The impossibility of reaching an equilibrium point of the price between the offer and demand on a market with asymmetrical information was proved by the author by developing certain theoretical models, as well as by empirical observations regarding the existence of unemployment, credit rationalization and other situations which highlight failures of the market.

Added up, the problems discussed above reveal a few very important aspects:

- The fact that information asymmetry is a phenomenon which is encountered in most of the fields of economical activities;
- The fact that information must be taken into account in every moment of the economical analysis;
- The fact that it is the most heterogeneous economical good, different from every other type of merchandise;
- The fact that the information has the characteristics of a public good, that is there aren't sufficient means of prohibiting the access to information of those who don't contribute to obtaining it;
- The fact that information can't be sold but once, after which it loses its informational feature and implicitly its economical value;
- In the transactions on market information the buyer doesn't have the possibility to know beforehand the quality and actuality of the product he is buying.

Based on these characteristics, Joseph Stiglitz (2002) develops an interesting commentary regarding the theoretical and practical consequences of asymmetrical information. From the numerous aspects analyzed by the author, I will mention those which are closest to the object of this paper, namely:

- The imperfection of information is a phenomenon spread in the whole economy, so that different people know different things: “workers know more about their abilities than the firm; the person who purchases an insurance knows more about his health than the insurance company; the owner of a car knows more about the car than the potential buyers; the owner of a firm knows more about his firm than a potential investor; the person who takes a loan knows more about his risk than the bank who gives him the loan” (2002, p. 488).

- In the case of markets with asymmetrical information, each economical agent is determined to risk in order to obtain the stock of information he needs in his transactions, but also to hide certain information he possesses from the other participants on the market. Meanwhile there are economical agents who are willing to give information, but in this case there is a problem of recuperating the costs involved by this activity.

- Through certain mechanisms, the market tends to reduce information asymmetry through the role played by the price system and the different activities of individuals or economic agents. The main mechanism through which an individual, for instance, can obtain information consists in the observation of the other individuals' behavior. A special relevance is thus owned by the insurance market, where the insured and the insurer try to obtain extra information, both being aware that through their behavior they do nothing but transmit certain information.

- The fact that through their actions and activities individual's pass over certain information determines then to change their behavior. These changes in their behavior aim to hide certain information about the true state of things, as it is similarly possible for the individual to induce false information which can distort the observation mechanism.

In the same analysis, Stiglitz refers to the means through which the theory of markets with asymmetrical information improved the program designed by J. M. Keynes and his followers. The starting idea regards the lack of a micro-economical grounding of macro-economical theories. This situation wasn't overcome by Paul Samuelson's attempts to combine traditional micro-economy theorized by Keynes in the so called neoclassical synthesis. The task of providing Keynes's theory with a micro-economical grounding fell upon the representatives of the theory about information imperfection, considered "true continuators of Keynesism".

One argument regards the improvements brought to the standard model of macro economical explanation. From this perspective, Stiglitz and the other supporters of the theory of markets with asymmetrical information consider that micro economy should be adapted so that is can sustain the results obtained by the macro economical theory, and macro economy, in its turn, should constitute a theoretical support for the level of the micro economical explanation. In the order of these preoccupations, the following aspects are envisaged:

- As opposed to Keynes's approach, where the demand for credit and the offer of saving money is left to the free action of the market, the new theory of markets with imperfect information tries to prove that credit market can't ensure an optimum level of the distribution of credit according to the interest, the essential element that appears in this mechanism being the one of rationalization of the credit.

- As a consequence of asymmetrical information between the creditor and the debtor, banks tend to maintain the actual rate of interest and not to satisfy all the lending demands. Not having the possibility to know the debtor's capacity to return the loan, the credit market is faced with „honest” debtors, who accept only those credits which they can return in the conditions of the contract, but also with „dishonest” debtors, who, in the moment of the loan, are aware of their incapacity to return the loan, hoping to eventually find recourses to pay their debts.

- The fact that the debtors who accept to pay a higher interest rate may be a symptom of the risks connected to paying back a loan. Consequently, even if the interest rate increases, the bank's risk of getting back its loan increases as well. This is the reason why the crediting institution sets an interest rate at a level which can insure the maximization of the profit and the minimization of the risk, the interest rate thus becoming mechanisms for client selection.

- If in the traditional macro economical theory shares and obligations were considered perfectly replaceable instruments on the long run, the theory of markets with imperfect information shows that the emission of shares constituted a signal for firms that are weak from the economical point of view. They prefer to issue shares on the market (where there are no obligations to return the sum obtained from selling them), instead of obligations (which involve the issuer's obligation to return the borrowed sum through the issue of value titles).

- When firms choose to issue shares, they practically share the risks with the shareholder. Their aversion for risk obliges firms to signal on the market their capacity to protect themselves from risks and to give signals regarding the profitability of the investment for the owners of the value titles.

- The asymmetrical distribution of information at the level of the participants to the transactions connected to the risk situation also manifests itself on the insurance market. The limit the phenomenon of adverse selection and that of moral risks, the insurance companies can

limit the number of insurance policies sold, in order to obtain information regarding the risk situation of the client. Consequently, the insurance companies are preoccupied to notice the distinctions between the different types of risks and the way in which they find themselves in the individuals' preferences for certain insurance contracts. By determining the clients to "reveal" information about their own risks, the insurance company gives them the possibility to choose a certain scheme of alternative contracts, where small indemnifications can be compensated through higher deductibility.

- While the representatives of the "new macro economy" doubt the state's capacity to influence the monetary bulk, since it can only control the exogenous money offer, not the monetary substitutes (shares, obligations and other derived value titles), the theory of the market with asymmetrical information anticipates that risk aversion and the uncertainty owed to the lack of information cause the firms not to resort to the capital market in order to obtain the funding they need. The explanation is that the owners of value titles are more interested in the price of selling these value titles, not their actual value.

The second argument refers to the controversial problem of the state's intervention in economy. Hence, the theoreticians of markets with imperfect information asked themselves whether governmental intervention would be a better way of correcting market failure. They tend to consider this solution more efficient than the ones envisaged by the laissez faire type of economy, especially thanks to the aspects connected to imperfect information. That is to say, the efficient allocation of resources can't be decentralized without the state's intervention and the system of taxes, contributions and subventions.

To support this option, two considerations of principle are invoked: governmental authority possesses a set of monitoring instruments that firms don't possess, the government thus being able to intervene and prevent or counteract the phenomena typical to asymmetrical information, as in the case of adverse selection and moral risks; government interaction can correct the distortion created through taxes and subventions owing to imperfect information by imposing other taxes or by diversifying the forms of giving subventions.

More specifically, Stiglitz (2002) refers to a series of research that led to the conclusion that an economy characterized by imperfect information can't be efficient from the paretian point of view even if the costs of obtaining information are taken into account. The conclusions

of these studies offer the author the arguments to declare the failure of the laissez faire type of economical theories. Among the reasons discussed, the following are mentioned: free market doesn't offer the individuals stimuli to discover and pass over information; the individuals have the tendency to create information asymmetry and to deteriorate the given market; even in the conditions where there is information, problems referring to their use will arise; the phenomena typical to asymmetrical information – adverse selection and moral risk – have the capacity to produce sufficiently important externalities so as to determine the permanent failure of the given market (cf. Stiglitz, 2002, p. 503-504).

### **Conclusions**

Just like Akerlof and Spence, Stiglitz noticed that in economy there are numerous segments of the market where information is asymmetrically distributed, and the means in which it is dispersed from one economical segment to another influences the behavior of individuals on the given market. From the perspective of the analysis presented in this article, three important conclusions have to be remembered:

a) if in traditional economic theory we discussed problems connected to the balance between demand and offer and the means in which the income is distributed in the process of exchange or in the efficient allocation of resources, the new theory brings an approach according to which a great part of market deficiencies can be the result of asymmetric distribution of information.

b) Even if information asymmetry offered an impulse for a more active involvement of the state in the economic activity, the economic agents who activate on the market with asymmetrical information try, on the one hand, to use information asymmetry in their favor and, on the other hand, to ensure the conditions for the respective market to adapt its functioning mechanisms. In this context, economic agents have strong reasons to counteract the adverse effects of the difficulties regarding the information about market efficiency, the market institutions being themselves interested in solving the problems generated by the asymmetrical distribution of information.

c) By studying the behavior of misinformed economic agents on a market with asymmetrical information, J. Stiglitz brings a distinct contribution by imposing the concept of selecting or „screening”

applied on the insurance market. He proves how the less informed part (the insurance company) can determine the informed part (its clients) to reveal their information about their own risks, and by using the screened information, the insurance company can distinguish the different risk classes offered to the insured, offering them the possibility to choose alternative contracts, where small despagubiri can be replaced with high deductibility.

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## Investment Evaluation Difficulties

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### Abstract

The financial criteria used for evaluation of the enterprise are not numerous; however, they are causing heated discussion on whether using a criterion at the expense of another.

The most utilized financial criteria used in the ranking of investment alternatives are: the net present value criterion, the internal rate of return criterion, the payback period limit criterion and last, but not least, the profitability index criterion. These criteria have in mind, in the first place:

➤ *investments impact on enterprise profitableness and results*, by recording the future positive cash-flow

➤ *investments influence on the balance of an enterprise*, traced through the evolution, on one side of the working capital<sup>1</sup>, on the other hand, the size of necessary working capital<sup>2</sup>

➤ *incidence of the investment project on enterprise risk level*<sup>3</sup>

Therefore, to ensure the best possible decision making, investors must choose of using, and why not, even construction of relevant indicators regarding the opportunity of an investment decision in one alternative or another. It is advisable to take into account a number of

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<sup>1</sup> an investment requires an initial allocation of capital which affects the size of working capital

<sup>2</sup> through investment, working capital necessary variation is positive and permanent, the expected conditions of growth divided over the entire period of the project

<sup>3</sup> payments related to investments affects enterprise treasury in real, in the context of a series of future uncertain cash-flows operations

principles, which are nothing more than to highlight various aspects of technical analysis of investment projects.

As a result, it is preferable not to neglect *the value of money in time* problem, solved by using dynamic indicators of investment; investment project analysis with reference the binomial *risk - profitableness*, ensuring that profitableness of an investment is directly proportional to the risk category in which is framed; the basis for the investment decision to materialize with the help of *marginal cash flow analysis* and, certainly not with the help of paper profits; taking into consideration *the fiscal policy* of the company; elimination of *the inflationary phenomenon* in the decision process; targeting of low risk investment projects, because this risk adds to the whole risk of the enterprise etc.

**Keywords:** investment, evaluation, difficulty, financial criteria, IRR

### Internal Rate of Return

Internal rate of return on an investment is the capitalization rate of the analyzed investment project's cash-flow, which equals the net present value of the initial investment value. Under a more practical expression form, internal rate of return can be defined as the capitalization rate that equals the value totaling the cash-in-flows investments with the initial value of the investment.

To calculate the internal rate of return (IRR) on an investment, whether we are talking about an IRR of financing<sup>4</sup>, or about an IRR of investing, assuming a single sum of initial capital invested, we use the relationship:

$$I_0 = \sum_{t=1}^n \frac{CFD_t}{(1 + IRR)^t} + \frac{RV_n}{(1 + IRR)^n}$$

where CFD is the size of future investment's cash-flow,  $RV_n$  is the residual value of investment at the end of its period, and  $I_0$  is the initial investment. Further we neglect size residual value.

From the definition we see that the internal rate of return uses upgrade technique to bring future cash flows to present, as their value significance.

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<sup>4</sup> cash-in-flows are positive and cash-out-flows are negative

For example, an investment that last 10 years, releasing a table of cash flow, summarized in the table below, according to an initial investment of 3,500 lei:

CFD <sub>1</sub>	CFD <sub>2</sub>	CFD <sub>3</sub>	CFD <sub>4</sub>	CFD <sub>5</sub>	CFD <sub>6</sub>	CFD <sub>7</sub>	CFD <sub>8</sub>	CFD <sub>9</sub>	CFD <sub>10</sub>
800 lei	700 lei	800 lei	900 lei	900 lei	850 lei	750 lei	700 lei	700 lei	700 lei

Under these conditions, internal rate of return is unique; at the rate of 18.43%, due to variations of a single sign of investment flows, considering that the initial investment was introduced into the calculation with the sign - .

By this discount rate, net present value is expressed in terms of percentage return, indicated value<sup>5</sup> being greater than the percentage of 15%. The impact of one investment's internal rate of return over its policy in maximizing enterprise value is also emphasized by the *net present value profile*, which, practically, represents graphic of NPV variation to percentual change of cash flow discount rate.

Determination of IRR solution is difficult enough, especially under the conditions where we refer to a long period of investment project, its calculation being reduced to solution of a polynomial equation of degree n. Therefore, either we calculate by repeated attempts either we use the interpolation method. According to this method, internal rate of return of an investment is being estimated under the relation

$$IRR = k_{\min} + (k_{\max} - k_{\min}) \cdot \frac{NPV_+}{NPV_+ + |NPV_-|}$$

Where  $NPV_+$  positive net present value of is minimum,  $NPV_-$  is negative net present value of minimum,  $k_{\min}$  is discount rate proper to the minimum  $NPV_+$ ,  $k_{\max}$  is discount rate proper to the maximum  $NPV_-$ . For this we must calculate a net present value set according to several discount rates. However, the calculations do nothing more than to set approximate levels on internal rate of return of the investment analysis. Salvation comes from information technology, which provides various programs for calculating the indicators of this

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<sup>5</sup> according to BIRD, methodology of analyzing investment projects

nature. A solution would be the utilization of *IRR* (*Values; Guess*) function, offered by Excel spreadsheet program.

### **Rationality IRR**

Investors and the enterprise concept of internal rate of return vary. *Investors* perceive the IRR as the *minimum level of achievable profitability* on an investment, while the enterprise translates internal profitability indicator as the *minimum cost of invested capital*. Also, the investor wants to recover his initial investment in a short period, but the enterprise aims to minimize the cost of initial investment by rescheduling on a longer period with a smaller net present value. Because the asymmetry of information is present in the market economy, investors adopt a pessimistic attitude, but they trace maximizing the most unfavorable options in future enterprise value. In contrast, the company stands at the opposite end, approaching an optimistic attitude, to determine the investor to place his equities in projects of the enterprise. All this shapes a truly strategic game, each player watching the moves of the others. The two divergent optical, translated into the language of decision theory are expressed for the investor the form  $IRR_{optimum}^{investor} = \max[\min(\text{cash flow}_{investment} = I_0)]$  and for enterprise

$IRR_{optimum}^{enterprise} = \min[\max(\text{cash flow}_{investment} = I_0)]$ . Therefore, only the managers of the enterprise are responsible with identification of equilibrium IRR.

As a result of what was said, the internal rate of return is a relevant criterion for the selection of investments, considering the average *interest rate*  $r$ , as the reference yield. Conformable to this criterion, a rational investor will choose the investment whose rate of return is more than the average reference interest rate  $IRR > r$ , choosing to maximize the value of this indicator. In other words, internal rate of return can be analyzed from several angles:

- as the cost of capital employed in the investment;
- as an opportunity cost in relation to competing investment alternatives;
- as a form of minimum accepted profitability.

Reason of IRR criterion starts from the marginal analysis of future benefits corresponding to two or more investments belonging to different risk classes. An investor will choose for a risky investment as

long as the risk taken will be paid in his subjective limits of aversion against the risk. I pointed this reasoning, since a revelation of desire to obtain a maximized IRR by the investor is practically limited by investor's aversion to risk, without questioning an expected IRR rates virtually infinite anticipated.

The problem of applying the IRR criterion for assessing the investment is raising serious questions on relevant information revealed by this indicator, given that we refer to the informational value of the NPV criterion.

### **Contradictory results**

Determination of the importance of IRR criterion among other criteria used in evaluating investments is an extremely difficult step, the discussion starting on assumptions which started conceptualization of internal rate of return indicator and also from a series of mathematical properties of the present value function.

Need for such an approach is useful because a simultaneous use of two assessment criteria cause decision-making situations conflict. In the case of independent investment projects, application of the IRR and NPV criterion generates the same result decision. Difficulties arise when investment projects are excluded in which case the size and different time cycle are giving birth to incompatibility of results of the two investment criteria evaluation.

Although, in practice most managers use IRR criterion in financial investment decision, conceptually speaking, the NPV criterion is much better built, especially in terms of finality, and namely the reflection and measure of enterprise value maximization.

The best solution to clarify the conflicting moods aroused by the incompatibility with the IRR or NPV elections is the combined use of these criteria noting that the relevance of the IRR is deeply affected by multiple methodological flaws and interpretation. Therefore, as the prime criterion in evaluating must be used the net present value criterion, and as a criterion for choosing between investments with the same NPV we use IRR criterion.

Also, it is essential to mention that a comparative analysis of the results of the two evaluation criteria is not meant for validation of any of the alternatives investment.

If an investment project has a  $NPV > 0$  and an  $IRR > k$ , the project is validated. But in the case of investments that exclude each

other, decisional conflict will occur in case NPV criterion nominates as one of the appropriate investment, and through the IRR criterion is decided on other investments. Equally, the need of hierarchy investments, in terms of budget restriction<sup>6</sup>, is solving in-depth analysis of all investments, by choosing investments with net present value or internal rate of return in maximum.

Next we discuss the case of investments I-IX, whose cash flows are presented in the table below:

<i>I</i>	<i>II</i>	<i>III</i>	<i>IV</i>	<i>V</i>	<i>VI</i>	<i>VII</i>	<i>VIII</i>	<i>IX</i>	<i>X</i>
-3500 lei	-3500 lei	-1000 lei	-350 lei	-3500 lei	-3500 lei	-1000 lei	-1000 lei	-1000 lei	-750 lei
1000 lei	500 lei	3900 lei	50 lei	500 lei	2000 lei	100 lei	50 lei	1000 lei	500 lei
1000 lei	500 lei	-5030 lei	100 lei	1200 lei	1000 lei	300 lei	300 lei	600 lei	250 lei
950 lei	500 lei	2145 lei	150 lei	1400 lei	-5000 lei	500 lei	600 lei	200 lei	150 lei
900 lei	600 lei		500 lei	1500 lei	1000 lei	800 lei	1000 lei	250 lei	200 lei
800 lei	800 lei		400 lei	1000 lei	-2000 lei	300 lei	1200 lei	250 lei	150 lei
700 lei	900 lei		250 lei	2500 lei	-3000 lei	400 lei		300 lei	200 lei
700 lei	1100 lei		300 lei	2700 lei	0 lei	400 lei		400 lei	250 lei
500 lei	1200 lei		500 lei	1500 lei	0 lei	450 lei		550 lei	200 lei
400 lei	1300 lei		150 lei	1800 lei	-1000 lei	900 lei		100 lei	200 lei
400 lei	1500 lei		100 lei	1200 lei	0 lei	400 lei		100 lei	250 lei

### Relativism of IRR criterion

According to the basic objective of company's finances, enterprise value maximization can be achieved only by optimally-useful allocation of available funds in investment that provide maximum benefits. It is true that the minimum rate of return on an investment reveals the possibility of obtaining an added value in the future, compared with the initial investment, but net differentiation in favor of NPV criterion is the absolute impact on enterprise value, and not an impact on relative sizes.

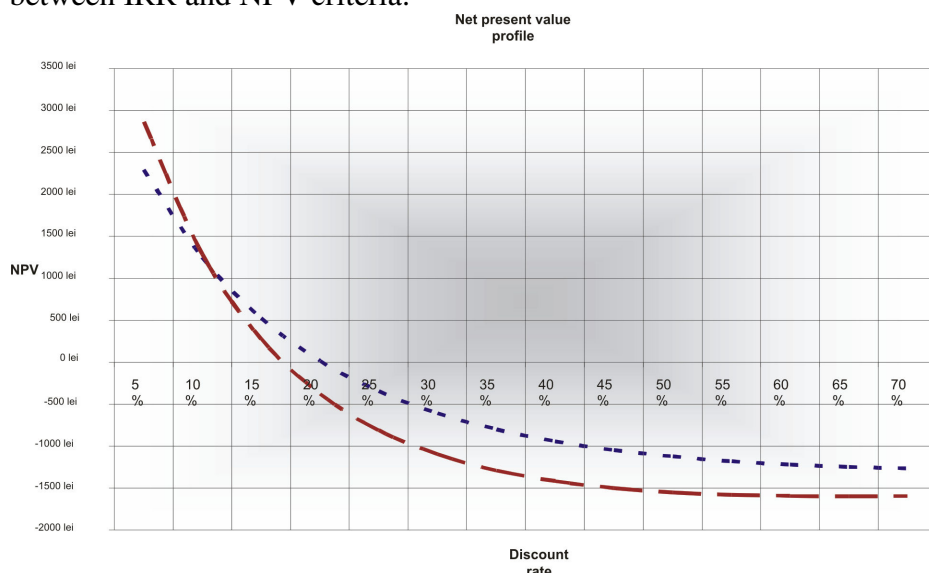
For instance, an investor chooses, rather, the investment V, with a net present value of 3.054 lei and an internal rate of return of 33.43%, than the investment IV with a net present value of 699 lei, but a rate of

<sup>6</sup> where investments are indivisible

48.76% IRR. Priority desideratum is to increase the wealth of enterprise shareholders; therefore the NPV criterion is the most indicated.

### Conflict Zone

In the figure below the NPV curves of two investments I and II are graphically represented. Through updated cash flow technique, it achieves a more severe reduction of their future value. Therefore, we see that the IRR rate lower than the corresponding rate curves intersection of the two investment NPV, conflicting situations arise between IRR and NPV criteria.



Thus, at a discount rate of future cash flows of the two investments, lower than level of 13.55%, we will have a net present value of investment I smaller than of investment II, although the IRR for the investment rate I (20.21%) is higher than the rate of investment II (16.86%). However, if future cash flows investments are updated at a higher discount rate meeting point of two curves will be able to proceed with analysis of individual investment projects using the two criteria, and the results will converge to the same conclusion.

### Investment Size

Let's analyze the present value of the investment profile graphic XI and X. The investment IX is characterized by an IRR of 61.60% and

a NPV of 1074 lei, while investment in X is defined by a net present value of 457 lei and a 36.35% IRR rate.

The magnitude of one investment affects alternatives investment evaluation from internal rate of return criterion perspective, once again due to the relative character of rates of return. Through an analysis of marginal cash flows, under the assumption that investment IX is an additional investment relative to investment X, we get the marginal cash flows:

CFDm <sub>1</sub>	CFDm <sub>2</sub>	CFDm <sub>3</sub>	CFDm <sub>4</sub>	CFDm <sub>5</sub>	CFDm <sub>6</sub>	CFDm <sub>7</sub>	CFDm <sub>8</sub>	CFDm <sub>9</sub>	CFDm <sub>10</sub>
500 lei	350 lei	50 lei	50 lei	100 lei	100 lei	150 lei	350 lei	-100 lei	-150 lei

Given that initial marginal investment is 750 lei, we obtain a net present value of marginal investment IX-X of 182 lei, reflected under the return of return's values of 28.02%. Because the marginal rate of return is higher than average interest rate by reference assumed of 15%, we can sustain that the investment project X is preferred to the detriment of investments X.

NPV										
	I	II	III	IV	V	VI	VII	VIII	IX	X
0%	3850 lei	5400 lei	15 lei	2150 lei	11800 lei	-10500 lei	3550 lei	2150 lei	2750 lei	1600 lei
5%	2294 lei	2863 lei	5 lei	1466 lei	7608 lei	-8224 lei	2291 lei	1525 lei	1978 lei	1056 lei
10%	1247 lei	1284 lei	0 lei	1010 lei	4878 lei	-6626 lei	1476 lei	1066 lei	1449 lei	699 lei
15%	526 lei	276 lei	-2 lei	699 lei	3054 lei	-5475 lei	934 lei	725 lei	1074 lei	457 lei
20%	18 lei	-379 lei	-1 lei	482 lei	1806 lei	-4627 lei	564 lei	468 lei	802 lei	289 lei
25%	-346 lei	-810 lei	-1 lei	328 lei	936 lei	-3989 lei	306 lei	274 lei	600 lei	168 lei
30%	-609 lei	-1097 lei	0 lei	216 lei	319 lei	-3500 lei	122 lei	125 lei	446 lei	80 lei
35%	-801 lei	-1288 lei	1 lei	134 lei	-124 lei	-3118 lei	-11 lei	11 lei	328 lei	15 lei
40%	-943 lei	-1415 lei	1 lei	73 lei	-447 lei	-2816 lei	-107 lei	-78 lei	234 lei	-35 lei
45%	-1047 lei	-1497 lei	1 lei	27 lei	-683 lei	-2572 lei	-179 lei	-147 lei	160 lei	-72 lei
50%	-1123 lei	-1548 lei	0 lei	-8 lei	-858 lei	-2373 lei	-232 lei	-200 lei	100 lei	-102 lei
55%	-1179 lei	-1578 lei	-1 lei	-34 lei	-987 lei	-2208 lei	-272 lei	-242 lei	51 lei	-124 lei



60 %	-1219 lei	-1592 lei	-2 lei	-55 lei	-1082 lei	-2070 lei	-301 lei	-274 lei	11 lei	-142 lei
65 %	-1246 lei	-1595 lei	-4 lei	-71 lei	-1152 lei	-1953 lei	-323 lei	-299 lei	-22 lei	-156 lei
70 %	-1265 lei	-1590 lei	-6 lei	-83 lei	-1202 lei	-1852 lei	-339 lei	-318 lei	-50 lei	-167 lei
75 %	-1275 lei	-1580 lei	-8 lei	-92 lei	-1238 lei	-1766 lei	-351 lei	-332 lei	-73 lei	-176 lei
80 %	-1281 lei	-1565 lei	-10 lei	-99 lei	-1262 lei	-1690 lei	-359 lei	-343 lei	-93 lei	-183 lei
85 %	-1281 lei	-1547 lei	-12 lei	-105 lei	-1278 lei	-1623 lei	-364 lei	-351 lei	-109 lei	-188 lei
90 %	-1279 lei	-1527 lei	-15 lei	-109 lei	-1287 lei	-1563 lei	-368 lei	-357 lei	-123 lei	-192 lei
95 %	-1273 lei	-1506 lei	-17 lei	-112 lei	-1290 lei	-1510 lei	-370 lei	-360 lei	-135 lei	-195 lei
10 0%	-1265 lei	-1484 lei	-20 lei	-114 lei	-1290 lei	-1462 lei	-370 lei	-363 lei	-146 lei	-198 lei
	Conflict zone		Multi ple IRR	Size of investment		Absence of IRR	Duration of investment		Investment Period	

### Investment time cycle

Also, *the time cycle* is a factor generating conflict situations, whereas in the case of cash flows investments from the first period, they are higher than those of other investments, enterprise will have a surplus of funds available that could place in other future investments, obtaining a higher net income than gains from other investments, because by update, with the passage of time, *money today is worth less than tomorrow*.

IRR criterion sets a trap to analysts under the analysis of profitable projects with different life times. For instance, investment VII, achieved on a period of 10 years, has an internal rate of return of 34.54%, inferior to internal rate of return of investment VIII that is of 35.53%. But investment VIII is planned to be achieved over a period of only 5 years. It would be wrong to consider investment VIII more feasible than investment IX, only on account of the internal rate of return. Therefore, if we calculate the net present value for only the first five years of investment under the case of investment VII, we will obtain a project VII internal rate of return of 23.17% and a net present value of only 217 lei, compared with net present value of investment VIII.

Therefore whole the net present value criterion is the most relevant indicator of discrimination against investments, investments more or less feasible.

### Reinvestment to constant rate

Internal rate of return was defined as being the discount rate of cash flow investment analysis, to cover the full amount of initial investment. But it went wrong at least realistic assumption of constant reinvestment under the same company and at the same IRR of future cash flow.

To solve this it proceeded to accept the assumption of reinvestment of future benefits at a rate of return of the enterprise, and not of investment project, by the size of enterprise capital cost. Modified internal rate of return, abbreviated MIRR is being calculated

by the relationship: 
$$MIRR = \sqrt[n]{\frac{\sum_{t=1}^n CFD_t \cdot (1+d)^{n-t} + RV_n}{I_0}} - 1$$
, where  $d$  is

enterprise specific rate of return that can be reinvested future cash flows.

Clearly as the size of internal rate of return depends directly of positioning of the IRR from benchmark rate stock market  $d^7$ , representing the average interest rate on risk-free securities, as shown from the values below:

$d$	10.00%	15.00%	20.00%	25.00%	30.00%
$MIRR_I$	13.70%	16.85%	20.07%	23.36%	26.71%
$MIRR_{II}$	13.79%	16.00%	18.34%	20.80%	23.37%

It can be noticed that as long as the enterprise reinvestment rate is higher IRR rate, we will achieve modified growth rates of return. But rates of reinvestment lower than IRR generate increasing diminution of the modified internal rate of return.

### Multiple solutions

Another problem utilizing IRR in investment selection is the multiple solutions problem. This problem occurs only if the investment projects whose cash flow varies in the future, as an algebraic sign, from one period to another. The situation can be met if there is need for

<sup>7</sup> considered as the minimum rate of return required of shareholders

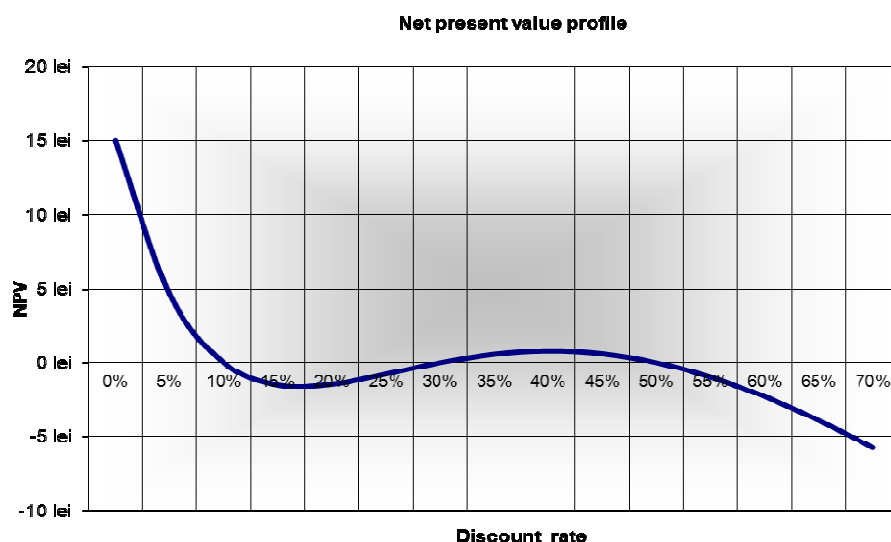
additional investment in the future, whether it's legal obligations, or extensions of the life of the investment.

As we can see in the graphic, the NPV curve that characterizes investment III, cuts the x-axis in three points, meaning the investment has three internal rates of return. They are determined by solving the mathematical equation of degree 10 polynomial.

In the case of the investment III we get three internal rates of return because we have three shifts of signs concerning the evolution in time of cash-flows. For the first internal rate of return is being used the function IRR of the Excel spreadsheet program, but the problem arises when determining the other two unknown rates of return. For this we will use the method of calculating the IRR through interpolation with the relation

$$IRR = 25\% + (30\% - 25\%) \cdot \frac{1}{1 + |-1|} = 27.5\% \quad . \quad \text{Analog will}$$

obtain the last value multiple of 52.5% IRR.



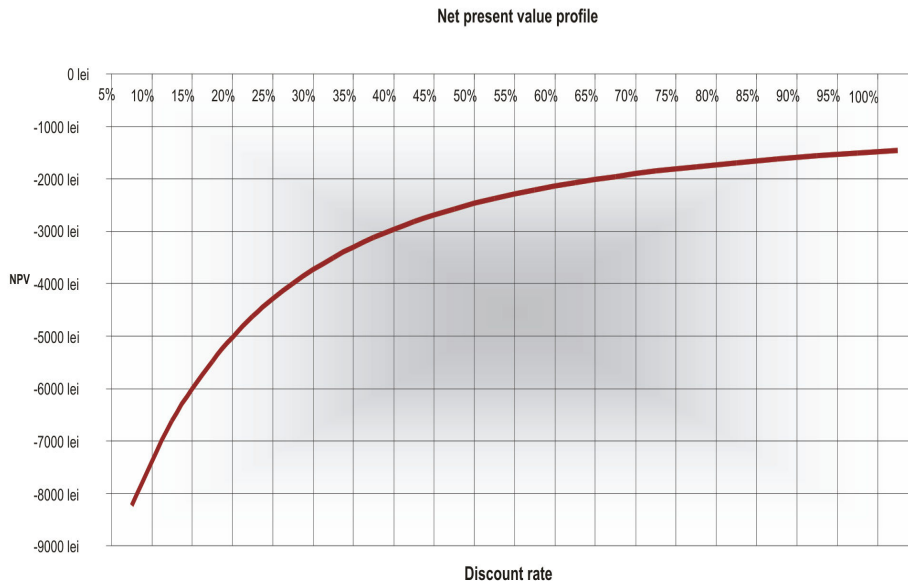
In these cases, abandon the use of the IRR criterion of investment evaluation considering it viable for the net present value criterion.

### IRR absence

Due to mathematical construction from which we started determining the internal rate of return, we've come to the situation where determining this kind of rate is difficult, at the expense of solving polynomial equation resulting from equating the net investment with present cash flow sum and with unknown IRR.

There are situations in which the equation that was just mentioned doesn't accept real solutions; therefore, we're assisting at an evaluation project of investment characterized through the absence of internal rate of return.

In this case, investment VI is characterized by strictly negative net present values, in case we go through the interval of discount rates [5%-100%].



If the discount rate tends to a very high value, present coefficient tends to the initial value of investment, which causes the gradual cancellation of the importance value discounted cash-flow. This behaviour can be described more than a perpetual investment in the

scheme,<sup>8</sup> in which case the present value of cash-flows is given by  $NPV = \frac{CFD}{IRR} - I_0$ . In addition to this asymptotic behaviour arises the financial practice problem, which doesn't look at situations of very high profitableness, since such situations are impossible at the level of analysis in absolute values.

### Conclusions

An investments internal rate of return has won an important place in decision making in the analysis of financial practices of the largest enterprises. But scientific research has shown that such a criterion is relevant only in terms of comparative analysis of independent investment projects, those you can use assessing the feasibility of investment into the truth of the relationship  $IRR > d$ . Also, a depth analysis of investment projects can be used as a useful tool in their classification, given that the economic situation imposes restrictions on enterprise financing. Therefore, indivisible priority projects<sup>9</sup> that are intended to be done are those projects with the highest values of the internal rates of return.

A use for the IRR criterion raises numerous conflicting situations, starting from incompatibility of the results obtained through evaluation using the IRR criterion and, also, NPV criterion. Conflicting statements are limited to investment projects whose related net present values curves intersect. Also, methodological insufficiencies make their way in the valuing of information offered by the application of the IRR criterion for investment evaluation: multiple IRR solutions, IRR absence, or the unrealistic assumption of reinvestment of future benefits at a constant rate of non-specific general business risk and profitability enterprise etc.

All these remarks don't have as purpose minimising the informational value of the internal rate of return, but only to draw a fine attention to the weaknesses and traps set by utilising this indicator.

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<sup>8</sup> project length tends to have high values, and cash-flow average describes and parallel to the x-axis

<sup>9</sup> if we analyse dividable investment projects, we will be able to make a portfolio of investments, in which the problem is to determine the structure vector of the portfolio's components, that have to assure a maximisation of enterprise value either through by designing an objective function of maximum internal profitability, or utilising a function of net present value hope

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## **The Financial Performance (Profitability) and Corporate Governance Disclosure in the Annual Reports of Listed Companies of Bangladesh**

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### **Abstract**

This research aims to test empirically the relationship between the Financial Performances (Profitability) and the level of Corporate Governance Disclosure (CGD) by the listed non-financial companies in Bangladesh. Data are taken from annual reports of the listed companies in the 2007. This paper is based on a sample of 94 listed companies and Used OLS as a method of estimation. The extent of corporate governance disclosure level is measured using 40 items of information and financial performance (profitability) is measured by return on assets (ROA). Using an unweighted approach for measuring corporate governance disclosure, this approach is most appropriate when no importance is given to any specific user-groups. After establishing the disclosure index, a scoring sheet was developed to assess the extent of corporate governance disclosures. The result shows that the Financial Performances (Profitability) and Board Audit Committee are positively correlated with the level of Corporate Governance Disclosure (CGD). Percentage of Equity Owned by the Insiders is negatively associated with the Corporate Governance Disclosure. The study provides empirical evidence to policy makers and regulators in South Asia.

**Keywords:** profitability, corporate governance disclosure, DSE.

### **Introduction**

Corporate disclosure has expected an enormous agreement of attention from many researchers (for example, see Dulacha, et al.2006; Eng and Mak, 2003; Haniffa and Cooke, 2002; Karim, 1996). A firm's profitability is positively associated with its corporate governance disclosure level. Samir, M. et al. (2003) argue that higher profitability positive association with the voluntary disclosure. Why corporations should and do disclose information is expressed in various theories namely stakeholder theory, agency theory, legitimacy theory and political economy theory. While different theoretical perspectives make different arguments, they all agree that companies release information mostly for traditional user groups such as shareholders, creditors, financial analysis and security consultants who find this information useful when making investment decisions (Haniffa and Cooke, 2002).The agency theory implies that companies increase disclosure in order to mitigate conflicts between shareholders and managers. In addition, companies wishing to enhance their firm value may do so by increased disclosure (Lobo & Zhou, 2001).

Kusumawati, D. N. (2006) finds that profitability affects good corporate governance voluntary disclosure level negatively. It implies that when companies are facing decline in profitability, they will tend to give more disclosure about corporate governance practices. No significant association is found between corporate profitability with aggregate disclosure level (Ahmed and John, 1999).

(Watson et al., 2002; Wallace et al., 1994; Ho and Wong, 2001; Hossain, M. et al.2006) suggested the underlying reasons why larger firms disclose more information. The reasons proposed are that managers of larger companies are more likely to realize the possible benefits of better disclosure and small companies are more likely to feel that full disclosure of information could endanger their competitive position.

### **Objectives of the study**

The objectives of the proposed study are:

- (i) To measure the level of Corporate Governance Disclosure information made by the listed companies in Bangladesh.
- (ii) To examine the association between Financial Performance (Profitability) and Corporate Governances Disclosure levels of listed companies in Bangladesh.



### **Agency theory and corporate governance disclosure**

Agency theory models the relationship between principal (owner) and agent (manager). Dulacha, et al.(2006) Corporate governance disclosure presents an excellent opportunity to apply agency theory, in the sense that managers who have better access to a firm's private information can make credible and reliable communication to the market to optimize the value of the firm. In the real business world where the market is not perfectly-efficient, they believed that managers use financial disclosure policy to balance the decisions they make and communicate to the outside shareholders. This illustrates that information irregularity problems influence the corporate governance disclosure policy of the company. McKinnon and Dalimunthe (1993) found favorable support that Australian diversified firms are more likely to voluntarily (CG) disclose segment information if they have minority interests in their subsidiary companies. This result indicates that disclosure of segment information provides incentives to align the interests between managers and minority interests and is therefore likely to reduce information irregularity problems.

Therefore, as suggested by agency theory, corporate governance disclosure could serve as one of the monitoring mechanisms.

### **Literature review and hypotheses develop**

#### **1: Profitability**

Managers are motivated to disclosure more detailed information to support the continuance of their positions and remuneration and to signal institutional confidence. Samir, M. et al. (2003) argue that higher profitability motivates management to provide greater information because it increases investors' confidence, which in turn, increases management compensation. It is also argued (Wallace & Naser, 1995; Meek, et al.,1995) that well performed companies are expected to disclose more information about their performance. Bujaki and McConomy (2002) show that firm facing a slowdown in revenues tends to increase their disclosure of corporate governance practices. Moreover, firms suffering serious corporate governance failures tend to provide extensive disclosure of governance guideline implemented in the period after such failures. Haniffa and Cooke (2002) find a positive and significant association between the firm's profitability and the extent of voluntary disclosure, which is consistent with the earlier (Ahmed and John, 1999; Kusumawati, D. N., 2006) find that

profitability affects Good Corporate Governance voluntary disclosure level negatively. It implies that when companies are facing decline in profitability, they will tend to give more disclosure about corporate governance practices. Since the studies supporting positive relationship between profitability and disclosure are conducted in financial disclosure field, the hypothesis of this study will be in the form of positive relationship. In this study, profitability is measured by return on assets (EOA); that is, net income divided by total assets. The following specific hypotheses have been tested regarding profitability of the firm:

**H<sub>1</sub>:** The level of Corporate Governance disclosures is positively associated with the higher profitability of the firm.

## **2: Ownership structure**

Ownership structure is another mechanism that aligns the interest of shareholders and managers (Eng and Mak, 2003; Haniffa and Cooke, 2002; Chau and Gray, 2002; Hassain, M. et al., 1994). The agency theory suggests that where there is a separation of ownership and control of a firm, the potential for agency costs arises because of conflicts of interest between contracting parties. It is believed that agency problems will be higher in the widely held companies because of the diverse interests between contracting parties (Mohd, et al.2006). By utilizing disclosure, managers provide more information to signal that they work in the best interests of shareholders.

McKinnon and Dalimunthe (1993) shows that companies with a single ownership structure disclose more voluntary information. Hossain, M. et al.(1994) suggested a negative association between management ownership structure and the level of voluntary disclosure by Malaysian listed firms. In addition, Lakhali (2005) propose that share management ownership is statistically and negatively associated to voluntary earnings disclosures. Oliveira et al.(2006) also reported that firms with a lower shareholder management voluntarily disclose more information.

The significant role of management ownership in influencing voluntary disclosures practices of firms from the prior researcher. So it is expected that ownership structure will influence the corporate governance disclosure information. The hypothesis is formally stated as:

**H<sub>2</sub>:** The level of corporate governance disclosures is negatively associated with a higher management.

### **3: Board audit committee**

Ho and Wong (2001) provide that a positive association between the presence of an audit committee and corporate disclosure practices. Similarly, McMullen (1996) reported that the presence of an audit committee is associated with reliable financial reporting, such as, reduced incidence of errors, irregularities, and other indicators of unreliable reporting. In addition, Bradbury (1990) argued that: “audit committees are commonly viewed as monitoring mechanisms that enhance the audit attestation function of external financial reporting”. The board usually delegates responsibility for the oversight of financial reporting to the audit committee to enhance the breadth of relevance and reliability of annual report (Wallace et al., 1995). Thus, audit committees can be a monitoring mechanism that improves the quality of information flow between firm owners (shareholders and potential shareholders) and managers, especially in the financial reporting environment where the two have disparate information levels. Given the influence of audit committees on the context and content of corporate annual reports, the following hypothesis is tested

**H<sub>3</sub>:** The level of corporate governance disclosure is associated positively for firms that have an audit committee.

### **4: Firm size**

Most of these studies found that size of firm does affect the level of disclosure of companies. Barako et al. (2006); Brammer and Pavelin (2006) investigated that the larger the firm, the more likely they will make voluntary disclosures. Based on the study done world wide, for example- Watson et al.(2002); Wallace et al.(1994); Ho and Wong (2001);Hossain, M. et al.(2006) suggested the underlying reasons why larger firms disclose more information. The reasons proposed are that managers of larger companies are more likely to realize the possible benefits of better disclosure and small companies are more likely to feel that full disclosure of information could endanger their competitive position. Thus, the impact of firm size is expected to be positively associated with the extent of social responsibility disclosures. In this

study, sales turnover and total assets will be used as the measures of company size. The following specific hypotheses have been tested regarding size of the firm:

**H<sub>4</sub>:** The level of corporate governance disclosures is positively associated with the total assets of the firm.

**H<sub>5</sub>:** The level of corporate governance disclosures is positively associated with the sales turnover of the firm.

### **Research design and methodology**

#### **1: Disclosure index construction and application**

In the initial stage of this research, comprehensive list of items that may be corporate governance disclosed (CGD) by companies in their annual reports was identified. The list of disclosure items included both financial and non-financial items that may be relevant to investment decision-making, and that listed companies may be disclosed. Since the focus of this research is corporate governance disclosures (CGD), the preliminary list of 60 items was subjected to a through selection to eliminate those that are mandated. This list was sent to various experts (professor, Professional Chartered accounted & Cost and Management accounted etc.) for selection and as a result of their feedback, the initial list of 60 items was reduced to 40 items. The disclosure items are classified into seven categories: shareholders, board of commissionaires, board of directors, audit systems, corporate secretary, stakeholders, and disclosure information. (a list of the final 40 items is included in Appendix -1)

I employed an unweighted approach for the study. This approach is most appropriate when no importance is given to any specific user-groups (Kusumawati, D. N., 2006). After establishing the disclosure index, a scoring sheet was developed to assess the extent of corporate governance disclosures. If a company disclosed an item of information included in the index, it received a score of 1, and 0 if it is not disclosed. The method of initially computing the disclosure score for each company can be expressed as follows:

$$DCOR = \sum_{j=1}^n \frac{d_j}{n}$$

DCOR = the aggregate disclosures score;

$d_j = 1$  if the  $j$ th item is disclosed or 0 if is not disclosed;  
and

$n =$  the maximum score each company can obtain.

## 2: Sample selection and data sources

The sample data have been collected from the Dhaka stock exchanges seminar library for the period 2006-7. 94 listed non-financial companies from stock exchange have been selected on an available basis covering all sectors. The data in the current study about the financial performance (profitability) and corporate governance variables. The independent variables are profitability, ownership structure, board audit committee and firm size. The method of analysis is that of multiple regressions and the method of estimation is Ordinary Least Squares (OLS).

## 3: Regression model and test of hypothesis

The statistic method being used is multiple regression analysis. The regression equation developed empirically tests the relationship between the dependent variables of Corporate Governance disclosure (CGD) and independent variables of financial performance (Profitability). In addition to the financial performance, a number of control variables are also included in the model to test the hypotheses. The regression technique used to test  $H_1$  is as follows:

$$TVDE_{i,j,t} = \sum_{t=1}^{N_{ij}} X_{ij}$$

where,

TCGD = Total corporate governance disclosure score for  $j^{th}$  firm at the time  $t$ ,

$N_{ij}$  =  $i^{th}$  item for  $j^{th}$  firm

$t$  = year

$$TCGD = a + \beta_1 PROA + \beta_2 PEOI + \beta_3 BAC + \beta_4 TA + \beta_5 TSE + \epsilon$$

The variables that will be used in the analysis are as follows:

### *Dependent Variables:*

TCGD = Total corporate governance disclosure score received from each company

***Independent Variables:***

PROA = Percentage of Return on assets as net profit to total Assets.

PEOI = Percentage of equity owned by the insiders to all equity of the firm.

BAC = Board Audit Committee, 1 for yes or 0 for No

TA = Total assets of the firm.

TSE = Total Sales of the firm.

a = total constant, and

$\varepsilon$  = the error term

## **Results and discussion**

### **1: Results of descriptive statistics**

Table nr.1 presents descriptive statistics for the sample firms. The results from the disclosure index indicate (TCGD) the highest score achieved by a firm is 85% and the lowest score is 22.5 % with a standard deviation of 16%. So the firms are widely distributed with regard to voluntary disclosure. The mean of the Percentage Return on equity as net profit to total assets is 3.98% with standard deviation is 13.38%. The mean of the percentage of equity owned by the insiders to all equity of the firm is 21.93 with standard deviation is 19.77. The average board audit committee (BAC) is 0.60; standard deviation is .49% with minimum and maximum sizes of 0 and 1 respectively.

### **2. Results of correlation analysis**

Table nr. 3 show the Pearson correlation among the variables. The result indicates that corporate governance disclosure (CGD) is positively correlated with return on equity at the 1% level of significant. Similar results appear for the board audit committee. On the other hand CGD has a negative relationship with ownership structure and significant level is 1%. However, RCGD has a positive relationship with total assets and total sales but not significant.

### **3. Results of Multiple Regression Analysis**

Table nr. 4 show the relationship between the Financial Performances (Profitability) and the level of Corporate Governance Disclosure (CGD). The coefficient of determination R-square, F ratio, beta coefficients and t-statistics for the regression model and

summarized results of the dependent variable on the explanatory variables can be seen in the table-7. The results indicate an R-square of 0.615, and an F value of 28.171, which is significant at the 0.000 levels. Both of these values suggest that a significant percentage of the variation in corporate governance disclosure (CGD) can be explained by the variations in the whole set of independent variables.

If the independent variable PROA is one unit increased then this situation the dependent variable is increased 0.278 with SE = 0.084, Bata t value = 3.969 and significance at the 0.000. The result suggests that firms have a higher percentage of profit ability is positively associates with corporate governance disclosure. This result is similar to that of Samir, M. et al. (2003); Wallace & Naser (1995); Meek, et al.(1995); Haniffa and Cooke (2002)

With regard to control variables, my study suggests that are ownership structure of the firm in respect to percentage of equity owned by the insiders to all equity of the firm (P value<0.01) tend to have negatively corporate governance disclosures with the coefficient of - 0.236 significant at the 0.002 level. This is similarly with McKinnon and Dalimunthe(1993); Hossain, M. et al.(1994); Lakhali (2005); Oliveira, et al.(2006)

The board audit committee is positively associated with corporate governance disclosure practices. It is the important hypothesis of the extent of CGD, with the coefficient of 0.559 significant at the 0.000 level. This result is similar to that of Ho& Wong (2001)

With regard to control variables, this study suggests that firms that are larger in size in respect to total sales (P value<0.1) tend to have positively voluntary disclosures. This result similar with Watson et al., 2002; Wallace et al., 1994; Ho and Wong, 2001; Hossain, M. et al.2006. The regression results for firm size by total assets are insignificant. This result similar with Haniffa and Cooke (2002)

**Table nr. 1:** Descriptive Statistics for all Variables

Variables	Mean	Median	Minimum	Maximum	Std. Deviation
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TCGD	48.88	47.50	22.50	85.00	16.09
PROA	3.98	2.64	-74.01	72.11	13.38
PEOI	21.935	19.58	.001	65.92	19.77
BAC	0.60	1.00	0	1.00	.49
TA	26831.55	5026.30	56.95	378056.50	66041.84
TSE	18228.78	4840.22	0	441016.71	58455.81

**Table nr. 2:** Corporate governance disclosure score

Disclosure Score (%)	No. of Companies (N=94)
<=30	12 (12.8%)
31-40	25 (26.5%)
41-50	17 (18%)
51-60	23 (24.7%)
61-70	11 (11.7%)
71-80	5 (5.2%)
81-90	1 (1.1%)
>90	0 (0%)

The table shows the number and percentages of companies whose disclosure score is within the specified range.

**Table nr. 3:** Pearson Correlation analysis results (N=94)

Variables	TCGD	PROE	PEOI	BAC	TA	TSE
TCGD	1.00					
PROA	0.480(**)	1.00				
PEOI	-0.0396(**)	-0.124	1.00			
BAC	0.691(**)	0.287(**)	-0.286(**)	1.00		
TA	0.148	0.026	-0.283(**)	0.202	1.00	
TSE	0.144	0.109	-0.007	0.066	0.580(**)	1.00
** Correlation is significant at the 0.01 level (2-tailed).						
TCGD = Total corporate governance disclosure score received from each company. PROE = Percentage of Return on Equity as net profit to Total Assets. PEOI = Percentage of Equity Owned by the Insiders to all Equity of the firm. BAC = Board Audit Committee, 1 for yes or 0 for No. TA = Total assets of the firm. TSE = Total Sales of the firm.						

**Table nr. 4:** Multiple Regression Analysis (N=94)

Variables	Beta Coefficient	Standard Error	Beta t Values	Significance
PROA	.278	.084	3.969	.000***
PEOI	-.236	.059	-3.245	.002***



BAC	.559	2.361	7.720	.000***
TA	-.123	.000	-1.408	.163
TSE	.147	.000	1.750	.084*
* P<0.1, two tailed, *** P<0.01, two-tailed				
TCGD = Total corporate governance disclosure score received from each company. PROE = Percentage of Return on Equity as net profit to Total Assets. PEOI = Percentage of Equity Owned by the Insiders to all Equity of the firm. BAC = Board Audit Committee, 1 for yes or 0 for No. TA = Total assets of the firm. TSE = Total Sales of the firm.				
<i>R square</i> =.615 <i>Adjusted R square</i> = .594 <i>F Value</i> =28.171 <i>F significance</i> =.000 <i>Durbin Watson test</i> =1.634				

**Table nr. 5:** Summary of the regression results

Variables Labels	Expected Sign	Results
TCGD	Index	Index
$\beta_1$ PROA	(+)	Supported
$\beta_2$ PEOI	(-)	Supported
$\beta_3$ BAC	(+)	Supported
$\beta_4$ TA	(-)	Not Supported
$\beta_5$ TSE	(+)	Supported

### Conclusions and implication for further study

This research is an extension of previous research where a set of financial performance (profitability) variables is considered to examine their association with the level of corporate governance disclosure (CGD). The objective of this study was to examine financial performance (profitability influence on corporate governance disclosure. In this study used the disclosure index to measure corporate governance disclosure on a sample of 94 listed companies of Bangladesh. The first hypothesis of the study was a higher profitability of the firm is positively correlated to the level of corporate governance disclosure (CGD). Also finding my result is positively related to profitability of the firm. This result is similar to that of Samir, M. et al. (2003); Wallace & Naser (1995); Meek, et al. (1995); Haniffa and Cooke (2002).

There are number of limitations of this study as well. First limitation of the study is used only non-financial companies as a

sample. So, the results may not extend across all companies in Bangladesh. Second, the researchers' constructed disclosure index which has been used in the study. The index is very sensitive and can affect the results if the selected items of information improperly. Third, the study considers only one year of data. The results may differ across different years if multiple years are considered for analysis. Finally, the study investigates the extent of corporate governance disclosure leaving the other facet of disclosure i.e., mandatory disclosure. The results of the study should be interpreted with these limitations in mind.

Future research on corporate governance disclosure should seek to take into account all listed companies under non-financial group. Additionally, studying the same research issues found here but in a different industry sector would be an interesting extension of this study. This may disclose interesting results in terms of variations within the industrial sectors.

#### **Appendix nr. 1:**

#### **Good Corporate Governance Disclosure Check List in Annual Reports of Bangladesh**

##### **A. Shareholders**

1. Shareholder Rights
2. General Meetings of Shareholders
3. Equitable Treatment of Shareholders
4. Shareholders Accountability
5. Appointment and Remuneration System of the Board

##### **B. Board of Commissionaires**

6. Commissionaires Functions
7. Commissionaires Composition
8. Compliance to Articles of Association (AoA) and Law
9. Meetings of Commissionaires
10. Information for Commissionaires
11. Other Business Relationship between Commissionaires and the company
12. Forbidden of Taking Personal Gain
13. Appointment, Remuneration and Performance Evaluation of independent -Directors
14. Committee Established by Commissionaires

##### **C. Board of Directors**

15. Directors Roles
16. Directors Composition
17. Compliance to AoA and Law

18. Forbidden of Taking Personal Gain

19. Directors Meeting

20. Internal Controls

21. Directors Roles in Accounting

22. Registers

#### **D. Audit Systems**

23. External auditor

24. Audit Committee

25. Information

26. Confidentiality

27. Audit Regulations

#### **E. Corporate Secretary**

28. Corporate Secretary Functions

29. Qualifications

30. Accountability

31. Corporate Secretary Role in Disclosure

#### **F. Stakeholders**

32. Stakeholders Rights

33. Stakeholders Participation in Management Monitoring

#### **G. Disclosure**

34. Timely and Accurate Disclosure

35. Matters of Material Importance to Decision Making

36. Compliance Disclosure to the Codes

37. Disclosure of Price Sensitive Information

38. Donation

39. Compliance to Health Protection, Working Safety and Environmental Law

40. Equitable Working Opportunity

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## **Reflection in the non-profit legal persons accounting of the grant-oriented operations**

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### **Abstract**

In this paper we will analyse the legal stipulations regarding the reflection in accounting of the grant-oriented (structural funds) operations within a non-profit organization. The suitability and importance of the paper is obvious, since the grants constitute an important source of funds for this category of entities. The paper indicates, in addition to the specific accounting notes, the main problems the grant beneficiaries have to face regarding the organization and management of the project accounting, thus the paper having a profound practical nature.

**Keywords:** accounting, structural funds, project, non-profit organizations

### **Introduction**

The project accounting is defined in the Manual of internal procedures for the POS DRU implementation as being an activity designed to monitor the management and development of assets and liabilities, as well as the obtained results.

The European projects accounting activity should be organized according to the community and national stipulations, therefore the accounting principles (above mentioned) and their functions will be complied with, of which the most important, in this context, are the supply of documents and information.

Project accounting is also found in the literature under the name of project-oriented accounting, defined as the organization and accountancy of the project, which gives the project performer the possibility to aggregate the data in accordance with the audit requirements of the financier (Ivan I., Dobre E., Pocatilu P., 2003). The problems arising in the project accounting are related to its purpose or its reflection in the two forms of accounting, financial accounting and management accounting.

Related to the first aspect - project accounting - it is, besides a correct accountancy, also an efficient fund administration, i.e. the observance of the contractual stipulations that led to financing (financing contract, manual of the beneficiary).

As regards the second aspect - its entry in one of the two forms of accounting - we consider, like other authors in literature, that it can be organized:

- within the *financial accounting* of the entity developing the project together with other activities, either by using general accounts with project analytics, or by project dedicated accounts that should close the project incomes and expenses separate from other activities (accounting monism);

- as a project *management accounting*, in the sense required by the theory, regulations and accounting practices for production practices that require the cost calculation per product unit and the income and expense budget analysis per product unit, if the project to be achieved represents such a productive capacity.

Based on this definition, we can affirm that in the case of a project financed through structural funds we use only the financial accounting through the account afferent to the obtained grants, which are credited by the statement funds and debited by the expenses justifying documents, by analytical/project-oriented expense accounts.

With regard to the project accounting as management accounting we consider that we can include the total of activities destined for the project budget, the efficiency principles, the economy and effectiveness, as well as the delimitation of the project eligible and ineligible costs.

In conclusion, the project accounting is based on a new vision which starts with the obtained fund continuing with the use of the possibilities offered by financial accounting simultaneously with the management accounting for a finality of the project activities.

### **Organization and management of projects accounting by non-profit legal persons**

The regulatory document on the legit which underlies the organization and management of non-profit legal persons is the PFMO no.1969/2007 regarding the approval of accounting regulations for non-profit legal persons with further changes (a last essential change being made by PFMO no.2869/2010 for the change and addition of certain accounting regulations). As regards this category of beneficiaries, we should make a clear delimitation between the non-profit legal persons that have the obligation of organizing a single-entry accounting and the ones who are obliged to organize a double-entry accounting.

Given the objective of this paper, i.e. of capturing the way in which the economic-financial operations within the structural funds-financed projects are reflected in accounting, and taking into account the categories of non-profit legal persons that can access such funds, we can notice that the only entities that can organize and manage a single entry accounting are the cult units.

We also need to mention that the accounting notes elaborated in order to reflect the above mentioned operations in the beneficiary's accounting do not differ significantly from those presented in the category of economic entities beneficiaries, due to the fact that, under the law, for the economic activities undertaken by non-profit legal persons, the regulations PFMO no.1969/2007 are supplemented, where appropriate, with accounting regulations in accordance with Directive IV of the European Economic Community, stipulated in the annex PFMO no.3055/2009.

An enquiry-based study conducted among the grants beneficiaries, including the non-profit organization, highlighted the following:

- there is at least one person designated to deal exclusively with the project implementation (their attributions referring especially to the identification of financing sources, writing and grant-oriented projects implementation);
- the financial difficulties are considered to be the most difficult to solve, among the problems that occur during the project implementation;
- the documents elaborated by the management authorities do not reduce/solve the financial problems.
- the occurred problems related to financial management are the most frequent and the most difficult to solve, in time, the problems linked to project accounting are very seldom encountered, being easy to solve;



- the applied procedure regarding the refund of eligible accounts is considered very difficult by non-profit legal persons;
- the main problems encountered during the process of the costs refund was related to the failure in complying with the term of the eligible expense refund;
- the adjustment of the bureaucracy and awareness of the contractors are considered the main solutions in avoiding the above mentioned problems.

### **Reflection in the beneficiary accounting – non-profit legal persons**

Next, we present the main accounting entries related to project implementation by non-profit legal person, as follows:

- The entry of the sum to be received from the Certification and Payment Authority/Managing Authority, under agreement:

1. amounts structural funds, with the budget value afferent to the investment refunded from structural funds (that will be amortized) EFRD:

$$\begin{array}{lcl} 445.2/\text{analytic Fund} & = & 132/\text{analytic Fund} \\ \text{„Grants of subvention nature”} & & \text{„Grants of subvention nature for} \\ & & \text{investments”} \end{array}$$

2. value of eligible expenses, less the investment value:

a. amounts structural funds:

$$\begin{array}{lcl} 445.2/\text{analytic Fund} & = & 472/\text{analytic Fund} \\ \text{„Grants of subvention nature”} & & \text{„Incomes registered in advance”} \end{array}$$

b. amounts state budget:

$$\begin{array}{lcl} 445.2/\text{analytic state budget} & = & 472/\text{analytic state budget} \\ \text{„Grants of subvention nature”} & & \text{„Incomes registered in} \\ & & \text{advance”} \end{array}$$

As regards the use of the account 132 “Grants of subvention nature”, there are discussions among the experts, on the grounds that the use of the account 132 for non-profit organizations is not completely justified in this moment, considering the definition of the account use.

According to legal stipulations, this account keeps record of the grants of subvention nature for investments, crediting with the investment subvention value, and debiting with the interest of

investment subventions registered at incomes, corresponding to calculated amortization.

There are opinions that, according to the updated law no.15/1994, “Non-profit legal persons that are entitled, by law, to carry out economic activities, will amortize the permanent capital only for those activities conducted for profit and for which, they are taxable on profit”.

Therefore, basically, the credit of the account 132 cannot be performed once with the monthly amortization entry and not a scheduled basis, because it does not exist (Vasile E., 2011).

- If funds are received (pre-financing amounts received from the Certification and Payment Authority/Management Authority) and no expenses that are financed from this source were carried out, then the following accounting notes will be elaborated:

a. amounts structural funds:

$$\begin{array}{lcl}
 445.2/\text{analytic Fund} & = & 472/\text{analytic Fund} \\
 \text{„ Grants of subvention nature”} & & \text{„ Incomes registered in} \\
 & & \text{advance”}
 \end{array}$$

b. amounts state budget:

$$\begin{array}{lcl}
 445.2/\text{analytic state budget} & = & 472/\text{analytic state budget} \\
 \text{„ Grants of subvention nature”} & & \text{„ Incomes registered in} \\
 & & \text{advance”}
 \end{array}$$

According to other experts (Vasile E., 2011), the entry of the pre-financing should be made in the account 462 “Various creditors”, but we consider that the accounting treatment of pre-financing is that of incomes in advance, given the fact this value will be deducted from the amounts submitted to refund in the future stages of the project, after the eligible expense certification.

- Cashing the amounts received from the Certification and Payment Authority/Management Authority as pre-financing:

$$\begin{array}{lcl}
 5121/\text{analytic project} & = & \% \\
 \text{„Current bank accounts”} & & 445.2/\text{analytic Fund} \\
 & & \text{„ Grants of subvention nature”} \\
 & & 445.2/\text{analytic state budget} \\
 & & \text{„ Grants of subvention nature”}
 \end{array}$$

- Based on the eligible expenses afferent to the sums allotted in advance, we will change the funds received in advance into incomes (pre-financing);

## a. amounts structural funds:

$$\begin{array}{lcl}
 472/\text{analytic Fund} & = & 741/\text{analytic project} \\
 \text{„Incomes registered in advance”} & & \text{„Incomes from exploitation} \\
 & & \text{subventions”}
 \end{array}$$

## b. amounts state budget:

$$\begin{array}{lcl}
 472/\text{analytic State budget} & = & 741/\text{analytic project} \\
 \text{„Incomes registered in advance”} & & \text{„Incomes from exploitation} \\
 & & \text{subventions”}
 \end{array}$$

- Cashing of amounts received from the Certification and Payment Authority/Management Authority as a difference between the value of the submitted Application and the received pre-financing:

$$\begin{array}{lcl}
 5121/\text{analytic project} & = & \% \\
 \text{„Current banks accounts”} & & 445.2/\text{analytic Fund} \\
 & & \text{„Grants of subvention nature”} \\
 & & 445.2/\text{analytic State budget} \\
 & & \text{„Grants of subvention nature”}
 \end{array}$$

- Entry of the income afferent to the amounts received by the Certification and Payment Authority/Management Authority regarding the depreciation, taking into account the calculated grant share (expenses type EFRD);

$$\begin{array}{lcl}
 132/\text{analytic Fund} & = & 758.4/\text{analytic project} \\
 \text{„Grants of subvention nature for} & & \text{„Incomes from subventions for} \\
 \text{investments”} & & \text{investments”}
 \end{array}$$

- Entry of the income afferent to the amounts received by the Certification and Payment Authority/Management Authority considering the interest of the refunded project value (other expenses type EFDR):

## a. amounts structural funds:

$$\begin{array}{lcl}
 472/\text{analytic Fund} & = & 741/\text{analytic project} \\
 \text{„Incomes registered in advance”} & & \text{„Incomes from exploitation} \\
 & & \text{subventions”}
 \end{array}$$

## b. amounts state budget:

$$\begin{array}{lcl}
 472/\text{analytic State budget} & = & 741/\text{analytic project} \\
 \text{„Incomes registered in advance”} & & \text{„Incomes from exploitation} \\
 & & \text{subventions”}
 \end{array}$$

### Conclusions

Given the outcomes of the enquiry-based survey, conducted among the grants beneficiaries, we can notice that the accounting organization and management of the projects is not consider problematic, even if the management involves problems, and the documents provided by the financer do not contain clear solution to solve them.

Referring to the reflection in the beneficiaries accounting, non-profit legal persons, of the economic-financial operations afferent to the projects financed through structural funds, there are discussions among accounting experts regarding the use of the account 132 “Grants of subvention nature for investments” for the reflection of eligible expenses of the project, as well as the recognition on incomes of the refunded expenses through the account 739 “Other incomes from non-profit activities” (analytical 739.2 “Aids and grants from the country and abroad and grants for incomes”)

As for us, we consider it necessary to align the legal stipulations in the accounting of the non-profit organizations with the ones of the PFMO no.3055/2009, as well as to register separately the eligible value of the project determined by the expenses type EFRD and by the values of other type of expenses (afferent to the purchase of inventory objects, consumables). In the same context, we consider appropriate the recognition of the incomes of refunded expenses relating the calculated depreciation, taking into account the share of the calculated grant (expense type EFRD) of the account 739.2 “Aids and grants in the country and abroad and grants for incomes” instead of the account 741 “Incomes from exploitation subventions” (analytical 741.6 “Incomes from exploitation subventions for other exploitation expenses”) only if the purchased assets are destined to a non-profit activity.

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## **Motivating the Nigerian Worker for Strategic Human Management: Insights and Concerns**

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### **Abstract**

The main objective of this paper is to contribute to the fact that there is no one best way of Motivating the Nigerian worker. That the best approach depends on the individual and the circumstances prevailing the workplace. Broadly speaking, motivation consists of a driving force or state of need deficiency which inclines a person to behave in a particular manner, or to develop a capacity for certain type of behaviour. The urge to act in a certain way may be generated by physiological or psychological needs or states including unconscious and conscious thought process or by external stimuli o by some combination of these. People obviously differ widely in these respects, and accordingly their behaviours also differ.

**Keywords:** human resources, motivation, Nigeria, worker

### **Introduction**

Since the 1930's there has been much attention to the role of motivation in worker performance in Nigeria. Earlier technologies for increasing performance, such as the simplification and standardization of work methods and the development of tests of aptitudes and abilities for use in personal selections, made important contributions but were not successful in eliminating wide spreads restriction of output Osuagwu (1984).

Roethlisberger and Dickson (1939) gave impetus to the study of motivational influences in performance as did the experiments of Kurt Lewin and his associates in group decision making and democratic

leadership (Lewin Lippitt, and White, 1939). The role of motivational process in determining a workers level of performance is now widely recognized. Connellan (1978) has identified the development of the 'will to work' as industries core problem in the utilization of manpower. Lewin Lippitt and White (1939) indicated the need for greater attention to problems of motivation and frustration by industrial firms. McGregor (1960) and Likert (1961) have also outlined theories of management based largely on assumption about human motivation.

### **Model for motivating the Nigerian worker based on Theories of Motivation**

Motivation is one of the most researched and discussed subject areas in both, public and business administration. It is a fact that no matter how good or efficient an organization is, nothing happens until the people who make up the organization are motivated to perform. This impetus may be totally internal to the employees, but often it requires the employer to exert an external stimuli's. Researchers have sought to explain how and why people are actual led to behave as they do and how they can be made to behave in a manner supportive of organizational goals.

Several theories have been developed to this end. These include:

- a) Abraham Maslow's hierarchy of needs
- b) Douglas McGregor's theory X and Y
- c) Frederick Hertzberg's motivation hygiene theory
- d) David McClelland's need to achieve theory
- e) B. F Skinner's behaviour modification theory
- f) Victor Vroom's valence – expectancy theory

The first three theories are comparable as they all seem to approach motivation from a similar perspective and emphasize similar sets of relationship. They have been observed to be too dependent on the content and context of the study. To Maslow the motivating forces behind the worker are higher level needs which are rarely satisfied by his own estimate, the average citizen is satisfied perhaps 85% in physiological needs, 70% in safety needs, 50% in love needs, 40% in self – esteem needs and 10% in self actualization needs

To Hertzberg hygiene factor do not motivate but must be in existence to neutralize dissatisfaction before the satisfiers can be applied to promote motivation.

McGregor's approach is based on the assumption that only attitudes based on theory Y can motivate workers.

The Maslow's higher level needs act the same way as Herzberg's satisfiers and McGregor's theory Y.

McClelland's need to achieve theory maintains that people with a high need for achievement have a completing desire for success and an equally intense fear of failure. A person with a high need to achieve would possess certain characteristics which would make it easier for him to work in some situations than others.

However, that some people exhibits (nach) characteristics and are internally motivated is not disputed but how to infuse some characteristics in people who lack them is the question. The difficulty with the theory is therefore, with its application. Besides, it does not present adequate picture of what the motivation and variables affecting workers are and how to carry out training programmes to induce (nach) personality in non (nach) persons.

In addition, behaviour modification theory states that people can be motivated by properly designing their work environment and rewarding good performances. This theory no doubt has very wide applicability but it requires complex laboratory experimental designs to test 'the effects of 'western' versus 'tribal' orientations on the relationship between enriched work and job satisfaction and performance. He found that 'the relationship between enriched work and job satisfaction was higher for western oriented workers than it is for tribal oriented ones. The significance of Orpen's work for this study appears to be his vivid identification of the motivational potential of certain instruments as they affect the western oriented worker and the relatively less potent form these same instruments were when applied to the tribal oriented worker. Orpen's work also confirms that the Nigerian worker has developed a work culture based on his own thought system.

In a similar vein, Otite (1978) has also argued that 'the behaviour of a people cannot be fully understood unless one knows their systems of thought'. Otite argument appears to be in line with an earlier exposition by Cole (1913). Cole argued that:

*'the form in which men cast their speculations no less than the ways in which they behave, is the result of the habits of thought and action which they find around them'.*

The beliefs, norms, rituals, traditions and sagas of the Nigerian worker determine what motivates him at work. It is therefore, necessary



to study the traditional Nigerian worker very closely to be able to identify his preferences, instead of relying on speculations which are western in orientation and philosophy.

### **Social Interaction of the worker**

Social psychologists typically emphasizes the fact that work is a social activity. Virtually all work roles requires social interaction with other people. The sales man interacts with his customers, the doctor with his patients, and the supervisor with his subordinates.

Miller and Form (1951) stated that the motives for working cannot be assigned only to economic needs, for men may continue to work even though they have no need for material goods. Even when their security and that of their children is assured, they continue to labour. Obviously this is so because the rewards they get from work are social, such as respect and admiration from their fellow men.

The tendency to gain satisfaction from social relationships has long been recognized as a human attribute. A worker who believes very strongly in a particular Christian religion which is the same as that of the boss could easily be motivated by the playing of Christian records at work. But that same worker may be de-motivated if a manager attempts to motivate him or her using 'gifts' that directly or indirectly connote 'bribery' as a catalyst.

### **Specialization and Job Satisfaction**

Although specialization has been a major guiding principle in the design of jobs for optional productivity, some social scientists asserts that the increased repetitiveness of jobs has not only resulted in greater dissatisfaction and turnover but has also reduced the motivation of workers to perform their jobs effectively Miller and Form (1951)

There is no doubt that increased specialization may increase as well as decrease productivity, but the pressing problem is the understanding of the conditions under which each of these results will be obtained. A great deal has been written about the pleasures and frustrations associated with different kinds of job. Psycholo-analytic theorists have speculated about motives which might explain the intrinsic satisfactions derived from work. In civilization and its discontents, Freud (1949) stressed the opportunity that work afforded individuals for discharging libidinal impulses.

Workers could sublimate their sexual and aggressive impulses and at the same time bind themselves more closely to reality. This idea is explained further by Hendrick (1943) he proposed a modified psychoanalytic view of motivation with his concept of a 'work principle'. He noted that work is not primarily motivated by sexual need or associated aggressions, but by the need for efficient use of the muscular and intellectual tools regardless of secondary needs-self – preserving aggressive or sexual work performance may also satisfy. This is the thesis of the work principle that primary pleasure is sought by efficient use of the central nervous system for the performance of well-integrated ego functions which enable the individual to control or alter his environment.

These motivational concepts do not easily lend themselves to empirical test. The basic problem remains what tasks are rewarding under what conditions. Since about 1950, researchers in experimental psychology using animal subjects have made numerous references to rewarding properties of outcomes which are not easily reducible to physiological needs or drives and suggest a motivational system which is more akin to the self –actualization tendencies, proposed by Goldestein (1940) and Maslow (1955). The data suggest that higher organisms are rewarded by the opportunity to explore and manipulate their environment. This development, along with parallel trends in psycholoanalytic theory and general psychology, has led White (1959) to propose the concept of effectance motivation.

### **Wages and Economic Circumstances**

One indisputable source of the desire of people to work is the money they are paid for working. Although one may disagree with monolithic conception of the classical 'economic man' few people would dispute the importance of anticipated economic consequences in the guidance of human conduct. Despite that money cannot buy happiness; it can be exchanged for many commodities which are necessary for survival and comfort. However, it would be incorrect to link the importance of money in our society strictly to the satisfaction of biological needs. The goods and services that are purchased with money do for beyond insuring survival. They serve, among other things, as an indicator of social status of the purchaser. The connection between the quantity and quality of goods consumed and the status of the consumer

However, the evidence concerning none economic incentives to work are not restricted to peoples report of their motivations. The existence of 'dollar a year men' who work with only token economic rewards and entrepreneurs who continued to work after having amassed tremendous fortunes is well known Vroom (1964). There is at least anecdotal evidence that people actually do return to work after inheriting large sums of money. Brown (1954) mentioned three workers in London factories who won large sums of money from football pools which, if suitably invested, would provide enough income to enable the men to live comfortably for the rest of their lives.

In each of the cases, after a short period of leisure, the men returned to work 'two on routine repetitive works' and one as a fitter'. Obviously, it seems clear that for a large proportion of individuals the decision to seek or to continue work is based partly on anticipated rewards obtain from work that have nothing to do with money or the uses to which money may be put.

### **Contemporary experiences on work and motivation**

Although work and employment as well as productivity might be conceived of in virtually similar ways universally, there is no doubt their positions as well as the values that determine them connect the prevalent socio-economic and cultural orders.

Oshagbemi (1984) for instance observed that, whilst the principles of management as postulated by management experts have universal applicability, the practice of management has not. In practice, management often has to take into consideration and incorporate various factors that affect the workers effectiveness on the job such as culture. Culture being defined as that complex whole which includes knowledge, beliefs, art law, morals, customs and any other capabilities and habits acquired by man as a member of a society.

Though studies on work and motivation carried out in the Nigerian setting may find the determinants of workers motivation for effective performance as manifestations of similar factors as discussed above, the cultural determination of such manifestations can not be over sighted.

Okpara (1984) believes that classical theories of motivation have origins in the developed countries of the world and bear all their value labels, as such discussion of classical theories and the Nigerian worker would appear to be a mere academic exercise. The cultural origins of the

classical theories are totally different from ours and therefore theories based on data derived from such culturally different bases would be highly questionable.

He, for instance, argued that Herzberg (1959) believed that satisfiers are related to success in the job recognition of that success, responsibility etc. But in Nigeria most workers do not work in where they are trained to work, or in which they have the skills. How often therefore, has someone with less potential for success and with a performance record been promoted above a hard working and conscientious worker just because the latter has no 'godfather' it would appear that the concept of 'godfatherism' is more in tune with our value orientation and we must think of ways of motivating our workers through such concepts as 'godfatherism'. He nevertheless, noted that workers are motivated in terms of the nature and quality of their personalities and the expectations with which they came when they were employed. He contended that though workers could have been motivated by, differential salary seals based on differences on cities costs and styles of living, group standards based on traditional belief systems, sensitive leadership, feedback related to good appraisal system, unsentimental methods of resolving conflicts, equal opportunity towards the development of the economy, work ethics based on relevant education, and the provision of basic amenities which would reduce the emphasis on money as a primary motivator. The prevailing socio-economic and cultural values imposed on them from outside have reduced these possibilities. For instance, at the moment Nigerian workers are operating colonial standards set by the colonial administration. The standards have no foundation in our traditional belief systems, our patterns of achievement and performance, and our concept of success or failure. We cannot motivate people by standards action to our way of life.

However, much as we share Okpara's ideas on the importance of cultural disparities on work and motivation, there is no doubt Nigerian workers have some work ideals as their counterparts in the outside world, save for the social malformations observed today in our society. We therefore, expect that in work situations where such social malformations are played down, the results of researches carried on work and motivation outside the country might be replicated.

In a study by Eze (1981) on ethnic group affiliation and work motivation, he found that there was no difference between European and Nigerian managers in the levels of need and job satisfaction.

Osuagwu (1984) refuted the no-applicability of classical motivational schemes in Nigerian work settings. Using empirical experiences reported from Dunlop and Bata Nigeria limited, he showed that motivational incentive scheme can be effectively applied in structured work environments in Nigeria.

He maintained that the applicability of motivational schemes in Nigerian work settings depend on the category to which the workers fall, the nature of the employment contract and the work environment. He found that white-collar and Aristocratic workers in structured work environment with valid employment contract were responsive to incentive schemes more than common and artisan workers. He found that workers in corporate business organizations with structured work environments are motivated by group solidarity, recognition, participation in matters affecting their job and destiny, and by a job design providing variety of activities.

Ifechukwu (1977) observed that employee welfare services, otherwise known as fringe benefits, are constantly rising when productivity does not appear to reach expected standards. He reported that many studies are of the view that fringe benefits at best give rise to job satisfaction and that there is no positive correlation between satisfaction and productivity as found in Kahr (1960). Many fringe benefits today act as the minimum expected condition for the acceptance of employment. Thus, there is a hidden cost in all fringe benefits as they are not motivators of behaviours.

It is not surprising therefore that employment productivity does not necessarily increase after the company has settled his hospital bills or after he has received his housing allowance or moring costs. However, these supplementary benefits tend to trap employees as they stay to take advantage of their accumulated benefits such as retirement pension, long annual vacations or sick benefits.

However, in the motivator-analysis, it was observed that these workers were still driven by historical motivators, even though they simultaneously yearn seriously for the progressive needs. After all said and down, it is evident that workers motivation- productivity relationship in Nigeria is not absolutely unrelated to the cause effect relationships so far established from research findings in the advanced

countries. It is agreeable that some unobjective and at times inexplicable variables, perhaps emanating from the epochal experience of the country, intervene in that cause effect relationship continuum, but the problems is how can such variables be played down or integrated into objective work variables.

### **Enhancing Motivational Technique**

On the basis of the study that there is no one best way of Motivating the Nigerian worker, that the best approach depends on the individual and the circumstances prevailing the workplace. Johnnie (1988) in his study recommended that the following attributes and circumstances of the worker appear to influence the way the worker perceives the motivational potential of a motivational activity.

- thought system and culture of Nigerian worker
- the relationship between worker and manager
- managers preferred style of leadership
- ability of the manager to determine workers' needs
- the influence of the immediate work environment on the worker
- sex and marital status of the worker
- ethnic or tribal composition of the worker in relation to that of manager
- educational level of the worker
- type of work the worker does
- the economic circumstances of the worker
- the religion of the worker
- time the technique or activity was used.

This attributes can help to inform the Nigerian managers of the range of variables which are likely to influence a workers perception of a particular motivational instrument or techniques, and therefore could determine the motivational potential of that variable in respect of a particular worker. In other words, managers who understand the utility or motivational potentials could use the attributes to solve motivational problems of each individual in the workplace. Nigerian managers could predict with a fair degree of accuracy whether or not a worker will perceive a particular motivational technique favorably or not.

### **Summary and Conclusion**

It is therefore necessary to study the traditional Nigerian worker closely to be able identify his preferences, instead of relying on speculations which are western in orientation and philosophy.

One serious problem which the Nigerian managers appear to encounter at work is the alien work culture and attitude (western orientated) which is in contra-distinction to the work milieu of the traditional Nigerian worker. The problem seems to have escalated as a result of the apparent slowness with which the Nigerian managers appears to be adapting in an attempt to re-learn traditional African values, norms, beliefs, and practices which he un-learned in the acculturation process of acquiring western education. The problem, therefore seems to revolve around how to reconcile the traditional African value systems and schemes and the 'white-man's' industrial culture. This appears to be the bane of the matter. This problem is likely to continue to create a system of management in most Nigerian workplaces where work attitudes may remain divergent. And if this situation continues it may become extremely difficult for the Nigerian managers to identify the needs of the Nigerian worker in an attempt to determine what motivates the workers.

The employee is greatly influenced by his environment. The worker has an entity passes through various institutional arrangements particularly at the village level, and these village activities have more or less established a 'concrete foundation' in his perceptual organization and frame of references Johnnie (1988). Those who argue that behaviour is a function of the environment hold the popular view that theories relating to determinism are positively correlated to the behaviour of the individual and his environment. If, therefore we are to accept the determinism point of view, it is not wrong to argue that the environment of the worker could have a very strong impact on him, and it may be difficult to change his work routine and culture by imposing an alien system (western-oriented) on big task to be able to identify what motivated the Nigerian worker and to determine a possible point of convergence between the Nigerian managers western and urban work culture and the seemingly rural or tribal work culture of the Nigerian employee.

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## **Changing Endogenous Development: the Territorial Capital**

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### **Abstract**

The aim of this research is to analyze territorial capital as a new paradigm to make best use of endogenous assets. The study is dealing with the preconditions, meaning and possible theoretical taxonomies of territorial capital. In this study I emphasize that the cumulative effects of regional potentials are more important than economies of scale and location factors. I present different approaches and interpretations of territorial capital, then make an attempt to create an own model. I try to find answers for questions, such as why territorial capital shows a new perspective of urban and regional development; how cognitive elements of territorial capital provide increasing return; how territorial capital influences competitiveness and what kind of relation it has with cohesion.

**Keywords:** territorial capital, regional potentials, regional development, competitiveness, cohesion.

### **The meaning and the background of territorial capital**

Although the idea of *territorial capital* has occurred in several scientific essays and documents of the European Union recently, these publications, beyond mentioning the expression, have not given its exact definition yet. The theory is newly shaped and the expression has lead to many different interpretations. Out of these approaches the concept of *Roberto Camagni*, published in 2008, seems to be a generally accepted and wide-spread idea in regional sciences, nowadays.

Territorial capital was mentioned first in a regional policy context by the *OECD* in 2001, then the expression was reiterated by DG Regio of the Commission of the European Union (*Capello et al.* 2009). These documents expressed that "each region has a specific territorial capital that is distinct from that of other areas and generates a higher return for specific kinds of investments than for others, since these are better suited to the area and use its assets and potentials more effectively" (*EC* 2005, 1; *Camagni* 2008, 35). An other possible approach emphasizes that territorial capital is the mirror image of regional competitiveness which links inhabitants, firms, environment and local society. It enhances investments within a region by adding value, building networks and linking regional potentials (*Konvitz* 2000).

The appearance and application of territorial capital derive from three different processes and facts. First, it is in connection with the changing interpretation of sustainable development; secondly, it is related to the European cohesion policy and the enlargement of the EU; and finally, the connection between territorial capital and regional growth theories is also undeniable.

Since the mid 1990's the notion of sustainable development has been changing. Previously, sustainable development had been regarded for long only from the output side. It means that sustainability had been interpreted as a long-term maintenance of production level ( $Q_1=Q_2=\dots=Q_n$ , where  $Q$  means quantities and  $n$  the number of years). Some years later the maximalization of social welfare function ( $SWF_1=SWF_2=\dots=SWF_n$ , where  $SWF$  is the social welfare function) became the key element of the theory. Further on, researches stressed that the quantity of indispensable energy did not have to decrease ( $EN_1=EN_2=\dots=EN_n$ , where  $EN$  means the capacity of energy), so only by exploring new quarries can be avoided the reduction of production (*Perman et al.* 1996).

But since the mid 1990's it is obvious that the classic production factors (capital, labour force, land, energy etc.) are scanty, so sustainable development has become unstable and vulnerable. The concepts above have not lost their reason for existence, however more attention has been given recently to new factors to interpret sustainability. They are the intangible, immovable assets of nations and regions. It means that besides classic factors, new forms – and models – of the economic system must be regarded. If regions and counties do not realize this new relation, territorial disparities would remain, so the

development gap between regions – and countries – will further increase. In the 21th century the wealth and prosperousness of regions are lying in the balance of natural, produced and intangible capital.

The decrease of natural and produced capital (especially in a period of economic crisis and exploitation of resources) must be substituted by intangible assets. As a consequence, profits and benefits need to be invested in knowledge management, creative industries and in research and development. Recently, the *Europe 2020 Strategy* has formulated a reinforcing priority to develop economies, based on knowledge, creativity and innovations (EC 2010). Truly, this is not only sustainable development, but smart and intelligent growth as well. It seems plausible that the appropriate and advanced knowledge plays an important role more and more.

The equation below symbolizes the new concept for sustainability and smart growth which have changed the already existing theories:

$$NaK^r_1 + PrK^r_1 + ItK^r_1 = NaK^r_2 + PrK^r_2 + ItK^r_2 = \dots = NaK^r_n + PrK^r_n + ItK^r_n$$

where  $r$  stands for the region,  $n$  is the number of years,  $NaK$  is natural capital,  $PrK$  is produced capital and  $ItK$  is intangible capital.

The success of a territorial system does not depend solely on material resources, but on the richness of cognitive elements, too. Intangible elements in connection with culture and innovative capacity accumulate through complex processes of individual and collective learning (Capello *et al.* 2009). The three components of the equation above represents the territorial capital of a region.

The second precondition for the idea of territorial capital is bounded to the enlargement of the European Union and the unsuccessful experiences of the cohesion policy. It must be stressed that due to the cohesion policy of the EU, regions and cities could develop and they have made considerable progress in many industrial branches in the past few years. The closing up procedure of territories manifests itself in the development of physical and human resources, the well-performed economies and the accumulated knowledge capital. The positive side of the convergence is not doubtful, cohesion policies had and have many

advantages<sup>1</sup>, although in many cases spatial-economic disparities remained rather persistent over time (*Capello et al.* 2009).

Nowadays, many critical points have been drafted by scientists and politicians, too. It has become clear that the reforms of Lisbon Strategy and the agreements of Stability and Growth Pact will not be improved. The convergence policy did not manage to rearrange the unequal spatial structure of economic activities and welfare (*Bougas* 2001). Territorial disparities between regions are proved to be constant, but it is sure that without the European structural policies regional disparities would have increased. Actually, many regions will never reach the productivity and efficacy which is present in the relatively wealthy regions! This is why researchers should focus on the different paths of improvement, labelled by a new form of endogenous development based on the capital of territories. Territorial disparities must not be judged only on the basis of transferable and flexible resources (classic capital and labour), but resources and potentials should be taken into consideration which root deeply in regional economic systems. According to *Barca* (2009) the spatial development and efficacy depend on the question, how much profit is drawn from the potentials and possibilities of a territory.

Finally, the shift to supply-oriented approaches has lead to the change in regional development concepts. It is stressed that "supply-oriented approaches have outperformed strictly demand-oriented ones" and "regional internal demand is not relevant, even in the short run, to drive regional growth" (*Camagni* 2008, 33). It means that scientists should focus on more complex elements and assets of regions to indentify economic, cultural, social and symbolic characteristics as a starting point for specialisation and positioning between them. Urban competitiveness is to be considered not only in economic terms but also in terms of living quality and socio-spatial cohesion as well (*Giffinger–Hamedinger* 2008). Truly, every region has its own development path, so the development directions of regional economic systems are merely determined by the previous happenings, experiences and processes (*Gertler* 2005).

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<sup>1</sup> The Fourth Report on Economic and Social Cohesion (*EC* 2007) refers to these advantages, results and efficacy. It needs to be mentioned that the second and third report had different establishments. According to these documents, regions achieved several results, but regional disparities remained severe.

The supply-oriented approach explains the differences between regional performances well, especially when cumulative effects played an important role in economic activities and influenced the typology of "winners" and "losers". Scientists have become more sensitive to define the possibilities of regional economic growth correctly. It also means that the feasible development strategies of territories or cities are dominantly determined by the locally-based assets, resources and their efficient utilization.

The presented perconditions above have drawn the attention of scientists and policy-makers to many important and endogenous resources, which bring higher return into the region than to other areas (*OECD* 2001). Territorial capital also implies a cognitive distance between regions and territories, since insiders are able to make a demand on higher return, benefits and revenues than the outsiders<sup>2</sup>. Knowledge, creativity, network building etc. are reducing the cognitive distance between regions. The insiders understand the economic processes of the territory better than others, so they are able to use the region's assets and resources more efficiently. Proximity and local milieu are reducing distrust and transaction costs, while they transfer knowledge to each other<sup>3</sup>.

It integrates people, firms and societies on local and regional levels, where spatial relationships (relational capital) are often more important than environmental quality (natural capital), social integrations (social capital) or economic efficiency (based on knowledge capital, cultural capital), although these factors are indispensable in a local context, too. According to *Konvitz* (2000) territorial capital enhances investment within a region by building on the qualities of places, their comparative – and absolute (*Camagni* 2008) – advantages which are a combination of immovable and intangible assets.

The concept of territorial capital is not static, but dynamic. It corresponds to the analytical description of how to take actions in an area. Each territory endeavours to find its position by focusing on access to markets, its image and potentials to attract people and business.

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<sup>2</sup> Insider refers to the region's inhabitants; outsider refers to residents in other regions.

<sup>3</sup> Local firms and inhabitants can exploit externalization of tacit knowledge, internalization of explicit knowledge and combination of information (*Nonaka–Takeuchi* 1995) more effectively than others.

### **Conceptual categories and relations**

In this part I give a brief analysis of the relation between territorial capital and some expressions used in regional economic sciences (location factors, economies of scale, cohesion and regional competitiveness).

Territorial capital is more than the set of physical and non-physical location factors since more complex and subjective elements play an important role above casual relations which means that territorial potentials are the real economic driving forces. Trust is more important than safety and security; regional creativity is more important than the availability of labour; interregional relations are more important than the reach of physical resources and socio-cultural communities are more important than simple business attitudes.

Territorial capital does not have to be identified with economies of scale either. Firstly, the examination units of scale economies are often firms and industries, while the objects of territorial capital are territories and regions. However, this statement is not generally acceptable because of the urbanization economies of scale (*Isard 1975*). It is easy to define the difference between large-scale economies and territorial capital, because the investments of regional capital assets are not linked with only one company seat. Territorial capital is not related to only one industrial branch, the components of territorial capital are not exclusively industry-specific. This is the main difference between territorial capital and localization economies of scale. Urbanization economies of scale and territorial capital are nearly the same, but elements of territorial assets are present much wider than in the other category. Urbanizational economies of scale does not contain high rivially, private goods and such collective goods as landscape and cultural heritage.

The interdependence between territorial capital and convergence also needs to be briefly discussed. Convergence in this context refers to the reduction of inequality of income (*Molle 2007*). Absolute convergence means that regions tend to the same value of GDP per inhabitants in long term, but this logic does not fit into the concept of territorial capital. According to the interpretation of conditional convergence every region tends to its own value of GDP per inhabitants in long term, determined by regional potentials. The dynamism among elements of territorial capital promotes the reaching of theoretical maximum performance of regions, but it does not mean that areas tend

to the same value of GDP per inhabitant. Absolute convergence is meaningless, but conditional convergence makes sense in this context. The level of economic, social, cultural and environmental differences do not equalize themselves, but they accumulate and result in regional divergences. Territorial assets ought not to be compared with each other, because development paths, resources, demands, possibilities and – consequently – the positions of territories are different.

According to *Giffinger* (2007) the meaning of regional competitiveness has been changed in understanding. Instead of concentrating on economic performance as the only relevant output (simple concept), the consideration of economy, society and policy as an interlinked system needs to be stressed (complex concept). Besides economic performance the standard of living, the function and characteristics of local societies and the natural and built environment are relevant, too. Advantages gained by specific territorial assets and the knowledge or ability to make best use of these have become increasingly important and provide socio-cultural exchange.

### **Theoretical taxonomy of territorial capital**

The objects of territorial capital consist of a wide scale of territorial assets. The possible components of territorial capital was summed up by the *OECD* in 2001 and later in 2008 by *Camagni*. In this study I also present an other possible classification of the elements of territorial capital on the basis of capital categories of economic sciences, sociology and social-psychology. Without the deep analysis of the capital forms I only cite some relevant authors below and present a possible new aspect on the basis of the quoted categories.

I regard territorial capital as a *collective term* for tangible and intangible capital forms that researches have already known and used on different scientific fields. Territorial capital is a set of tangible and intangible capital forms and this term contains individual and collective capital categories<sup>4</sup>, too. Individual capital is inherent in people, while collective capital forms are inherent in firms or in the society.

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<sup>4</sup> *Individual capital* categories: human capital, creative capital, psychic capital, knowledge capital, cultural capital, part of relational capital. *Collective capital* categories: structural capital, organizational capital, part of relational capital, economic capital, natural capital, social capital, symbolic capital.

**Table nr. 1: Elements of territorial capital**

OECD (2001): <i>Territorial Outlook</i>	<ul style="list-style-type: none"> <li>– the area's geographical location, size, factor of production endowment, climate</li> <li>– the area's traditions, natural resources</li> <li>– quality of life or the agglomeration economies, business incubators and industrial districts or other business networks</li> <li>– 'untraded interdependencies' such as understandings, customs and informal rules, social capital</li> <li>– combination of institutions, rules, practices, producers, researchers and policy makers (the 'environment' according to Marshall)</li> </ul>
R. Camagni (2008): <i>Towards a Concept of Territorial Capital</i>	<ul style="list-style-type: none"> <li>– a system of localised, pecuniary and technological externalities</li> <li>– a system of localised production activities, traditions, skills and know-hows;</li> <li>– a system of localised proximity relationships</li> <li>– a system of cultural elements and values</li> <li>– a system of rules and practices</li> </ul>
own modification (2009):	<ul style="list-style-type: none"> <li>– tangible capital assets: economic capital, produced capital, nominal capital, investment capital, natural capital</li> <li>– intangible capital assets: human capital, creative capital, psychic capital, cultural capital (embodied, objectified, institutionalized), relational capital, organizational capital, structural capital, social capital, symbolic capital</li> </ul>

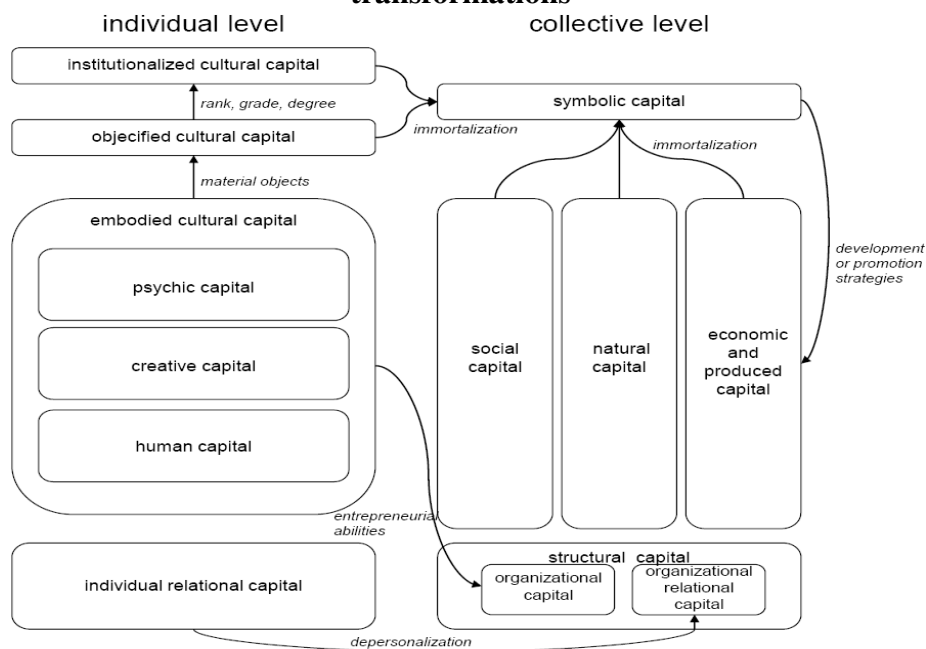
**Source:** Edited by the author (2010)

Scientists have separated produced, financial and investment capital for a long time. These capital forms are measurable and they contribute to a regions's GDP. Besides material components there is a row of intangible capital forms. The first attempts to define these categories came from sociologists. *Bourdieu* (1983) separated economic, cultural, social and symbolic capital categories and he defined the transformations into one another. Some years later *Coleman* (1988), *Putnam* (1993) and *Fukuyama* (1996) dealt with social capital, too. Intellectual capital was mentioned first in 1969 by *Galbraith*, but in fact it was used in the 1990's by many economists (e.g. *Sveiby* 1995; *Stewart* 1997). *Becker* (1993), *Schultz* (1983) and others were dealing with the idea of human capital, while *Tomer* (1987) published the concept of organizational capital among the first. The notion of natural capital (*Costanza–Daly* 1992; *Costanza* 2008; *Jansson et al.* 1994) became popular by the strenghtening of environmental management theories. After the milleneum new capital categories were published or made up: creative capital (*Florida* 2002), psychic capital (*Judson* 2002) and on the basic work of *Sprenger's* (2001) interfirm relation concept I separate the "personalized" and "depersonalized" relational capital.



It must not be evaded how the different components of territorial capital transform into one another. Material and physical objects (codified documents, compositions, products of fine art, products and techniques etc.) provide the transformation from embodied cultural capital into objectified cultural capital. Educational qualifications, academic degree and promotion at workplace accredit an institutional acknowledgement to the individuals. Enterprenurial abilities are input factors for cooperative working together in organizations. Characteristics like that always increase the value of organizational capital. Relational capital is formulated through depersonalization on collective level. The immortalization of capital cathegories is the most important in this context. In long term the transformation into symbolic capital provides the real – absolute – advantages and success of a territory. To make the best of symbolic capital, development or promotion strategies are needed. The suitable strategies and development plans bring on the one hand higher return in the region than in other areas and on the other hand they result financial benefits (economic capital).

**Figure nr. 1: Economic, natural and intangible capital assets and transformations<sup>5</sup>**



**Source:** Edited by the author (2009).

<sup>5</sup> The size of the bubbles is not related to the amount of the capital forms.

I introduce territorial capital and its elements through mathematical formulations. The components of tangible capital in region  $i$  are the following:

$$K_{material}^i = Pr K^i \cup NoK^i \cup IvK^i \cup NaK^i$$

$$K_{material}^i = f(Pr K^i; NoK^i; IvK^i; NaK^i).$$

The components of intangible capital in region  $i$  are the following:

$$K_{immaterial}^i = ItK^i = \sum_{j=1}^m CuK_j^i \cup Re K^i \cup OrK^i \cup SoK^i \cup SyK^i$$

$$K_{immaterial}^i = ItK^i = f\left(\sum_{j=1}^m CuK_j^i; Re K^i; OrK^i; SoK^i; SyK^i\right).$$

where:

$$\begin{aligned} \sum_{j=1}^m CuK_j &= \sum_{j=1}^m CuK_j^{emb} \cup \sum_{j=1}^m CuK_j^{obj} \cup \sum_{j=1}^m CuK_j^{ins} = \\ &= \left( \sum_{j=1}^m HuK_j \cup \sum_{j=1}^m CrK_j \cup \sum_{j=1}^m PsK_j \right) \cup \sum_{j=1}^m CuK_j^{obj} \cup \sum_{j=1}^m CuK_j^{ins} \end{aligned}$$

and where:

$$Re K = \sum_{j=1}^m Re K_j^{ind} \cup Re K^{org}$$

The elements of territorial capital in region  $i$  are the following:

$$K_{territorial}^i = K_{material}^i + K_{immaterial}^i$$

$$K_{territorial}^i = Pr K^i \cup NoK^i \cup IvK^i \cup NaK^i \cup \sum_{j=1}^m CuK_j^i \cup Re K^i \cup OrK^i \cup SoK^i \cup SyK^i$$

$$K_{territorial}^i = f(Pr K^i; NoK^i; IvK^i; NaK^i; \sum_{j=1}^m CuK_j^i; Re K^i; OrK^i; SoK^i; SyK^i).$$

*Signs and abbreviations:*

PrK – produced capital  
 NoK – nominal capital  
 IvK – investment capital

NaK – natural capital

CuK – cultural capital  
 CuK<sup>emb</sup> – embodied cultural capital  
 CuK<sup>obj</sup> – objectified cultural capital  
 CuK<sup>ins</sup> – institutionalized cultural capital

PsK – psychical capital  
 ReK – relational capital  
 ReK<sup>ind</sup> – individual (“personalized”) relational capital  
 ReK<sup>org</sup> – organizational (“depersonalized”) relational capital  
 OrK – organizational capital  
 SoK – social capital  
 SyK – symbolic capital  
 i – territories, regions (i = 1, 2... n)

**Direction of investments**

Regional development based on territorial capital covers two possible directions. Investments could tend towards the development of the built and natural environment – enhancing natural capital (NaK) and one part of produced capital (PrK) – and towards processes which give more attention to the intangible capital stock of inhabitants, institutions and the whole local society (ItK). The duration and extent of the development depend on the already existing level of material and immaterial capital assets and the way how individuals see their future and opportunities. It means that investments must be concentrated on two segments:

- investment into natural and built environment. City planners should focus on the aesthetic and ecologically balanced local milieu to increase living quality. These investments contribute to the establishment of innovative capacity and they strengthen the innovative environment, which attracts creative people. The material investments enrich the local characteristics and increase the level of symbolic capital.

- investment into personal skills and relationships. It mainly depends on the intelligence, mental, emotional and psychic conditions of inhabitants. The level of cultural capital (knowledge, creativity etc.) and relational–social capital (relationships, trust, institutions etc.) provide absolute advantages. Personal skills aggregates with entrepreneurial and social abilities through cooperation of people in firms and other institutions. Investing into regional relationship systems and innovations (product, technological and organizational innovation) are very important, because they integrate the system of local production. Individuals and group members should cooperate with each other in

order to reduce transactional, motivation and cooperation costs and increase information flow and opinion sharing.

Both the material and the intangible side of investments must be connected to each other, in other words they cannot function separately. This is the way people and companies can benefit from the physical and immaterial proximity.

### **Conclusions: a new paradigm?**

I emphasize that the system of territorial capital is a new model and paradigm for spatial development. The elements of the new paradigm are the following:

- city planners and researchers have to deal with the question how to increase the economic and social performance of regions and they should not focus only on the reduction of regional disparities;
- the conditions to improve regional performance should not be realised in a "top down" strategy, which means that the whole process must be established endogenously and shaped through "bottom-up" strategies. External financial assets should be inductive, but not significant;
- for a long time the objective of the regional development has been dealing with the problem, how to reduce the so called "unjustified" regional disparities. Basically, the problem is not in connection with the goal itself, but with the fact that scientists regard regional disparities as unjustified phenomenon. Truly, the characteristic of territorial differences is genuine, self-evident, so "justified" and in this way determines the positions of territories;
- scientists should emphasize more the sources of long-lasting competitive advantages. They should focus not only on economic advantages and economies of scale, but on social, cultural and environmental advantages as well. The concept of territorial capital requires letting many social and relational factors into the analysis;
- convergence, as I mentioned above, is conditional, since the maximal productive capacity of regions cannot be compared because of different development paths. This also has to be allowed for by researchers.

**Table nr. 2: Characteristics of the existing and new paradigm**

	<b>Existing opinion</b>	<b>New paradigm</b>
<i>Objective of territorial development</i>	reduction of disadvantages	increasing economic and social performance
<i>Direction of territorial development</i>	rather exogen than endogen	rather endogen than exogen
<i>Characteristic of territorial disparities</i>	unjustified	justified
<i>Types of permanent competitive advantages</i>	economic advantages agglomeration advantages comparative advantages	social advantages cultural advantages absolute advantages
<i>Type of convergence</i>	absolute convergence	conditional convergence
<i>Competitiveness versus cohesion</i>	economic and social cohesion	efficacy, positioning, competitiveness
<i>Function of external financial assets</i>	significant	inductive, complementary

**Source:** Edited by the author (2010).

The area's territorial capital depends on how people see their future and how they use and enhance the different capital forms on individual and collective levels. Regions need to concentrate on a number of strategic areas or unifying themes, built around specific elements and carefully integrating tangible and intangible resources available.

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## **Study on monitoring achievement of performance indicators in the subordinate local companies in Romania**

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### **Abstract**

This paper deals with the pursuit of economic indicators which are calculated in local subordinate companies. These indicators are imposed by the Board employee manager contract term. Accounting provides enough information to calculate them but we put the issue of prevention of the ability to stay within budget, projected revenues and expenses, before closing operations of an accounting period (month, quarter, semester, year).

**Keywords:** company of subordinate local term contract performance criteria, annual procurement program, cash flows, budget revenues and expenditures (BVC), the calculation of the overall degree of fulfillment of objectives BVC

### **Subordinate local companies**

A local company is the subordination of self-financed entity operating under Law No. 31/1990, as amended and the local authority has more than 50% of shares in the capital. It is a manifestation of private - public partnership that is aimed at several aspects such as: decentralization of public services to improve the quality of benefits to the population, a reduction in the administrative apparatus of local and territorial public expenditure reduction, a more efficient utility of resources.



This type of enterprise within the local economy as a system with many dimensions: technical-economic dimension, size, managerial, social dimension, environmental dimension, the financial dimension.

Although subordinate local companies private, public interest activities.

In Romania, they are subject to some specific rules on how management, supply and preventive control.

In terms of governance, the Board concluded a contract with the company's manager of fixed-term mandate. The legal basis of such a contract is GO nr.79/2008.

The annexes to the warrant establishes objectives and performance criteria to be met.

### **Tracking the objectives of BVC and the performance criteria**

In the case study for this topic data were taken from SC TARGURI, OBOARE, PIETÈ SA ARAD, a contracting authority for public service management consisting of food markets in this city.

Below are presented in Annexes 1 and 2 term contract of general manager of the company in October 2010.



**Annex nr. 2*****Calculation of the overall degree of fulfillment of objectives and performance criteria***

Nr. crt	Name criteria and performance indicators	UM	The period under review in <b>October 2010</b>			Weighting coefficient	Grade the performance review period weighted
			Provisions	Achievements	Degree of compliance%		col.5 x col.6
0	1	2	3	4	5	6	7
1*	<b>Gross profit rate</b>	%	10,95	22,18	202,56	0,40	81,02
	(Gross profit / C.A.) x 100						
2	<b>Labour productivity</b>	Thousands lei / pers.	73,36	73,05	99,58	0,10	9,96
	(C.A. / total staff number)						
3	<b>Recovery period of the claims</b> (Debt / CA) x 365	Days	13,00	16,00	81,25	0,05	4,06
4	<b>The period for repayment of debt</b> (liabilities / CA) x 365	Days	0	0	100,00	0,10	10,00
5	<b>The share of wage costs</b> (personnel expenses / spending. Of operation) x 100	%	38,53	52,56	73,31	0,10	7,33
6	<b>1000 lei revenue expenditure</b> (total expenditure / total revenue) * 1000	RON	890,55	824,31	108,04	0,20	21,61
7	<b>Royalty</b>	Thousands lei	65,34	65,34	100,00	0,05	5,00
The degree of compliance with performance criteria (sum of the values obtained col 7) <b>138,98</b>							

\*CA = Turnover

The two annexes to the indicators shows that there is one column (6) where the last „weight factor”;. This rate is established the Board and indicates that the entity manager’s assessment, the indicators are not equal in importance.

At the end of each month based on accounting information provided to prepare the income and expenditure and performance indicators against which to review the meeting the targets.

The data analysis presented shows that the level of October 2010 exceeded the company planned indicators in particular for those with higher weight, having some problems in recovery.

### **Possibilities of current tracking objectives**

Calculation of the achievement of objectives as outlined above can be made only after the conclusion of the month for accounting purposes

Why we put the question of how we track and prevent a situation like the end, after closing operations to ascertain accounting failure indicators. For this we need some daily operational situations tailored to the specific company.

As noted in the study has taken the company as activity management in a municipality markets.

Customers of the company are legal persons that enter into contracts under which invoices are issued to individuals who receive cash daily. In accounting revenues are recorded in the analytical market (profit centers) and type of income. Because the record does not indicate that all income amounts are received, must be made daily operational situation on the types of revenue receipts and markets (profit centers).

Such a situation helps us to track average daily employment in the goals to be achieved.

As for the costs, their pursuit of preventive materials is for the expenditure through the annual procurement costs for labor and living wage program. Annual procurement program is intended as provided daily running EGO 34/2006, there is a correlation between supply, consumption and the provisions of the income and expenses. Expense items and work life is not a particular problem to be pursued on remand as changes from one month to another are easily controllable. A company like that taken in the study of income from tariffs imposed by the specific food in public they must have very good liquidity. Any imbalance in this funding can create problems even though the company recorded a profit.

Therefore, in such an entity, tracking cash flow is imperative.

SCTOP SA cash flows can be calculated daily by the indirect method as outlined in the following table for October 2010.

***THE SITUATION***  
***Of daily cash flows in October 2010***

Date	Initial availability Balance	Total revenue	Claims receivable	Amount net revenues	Total expenditure	Debt Payment	Net Payment Amount	Net Cash Amount
0	1	2	3	4=2-3	5	6	7=5-6	8=1+4-7
1.10.2010	3.030.296,30	16.722,10	238.465,84	-221.743,74	29.419,81	591.215,32	-561.795,51	3.370.348,07
1.10.2010	3.036.444,02	13.911,13	238.465,84	-224.554,71	0,00	592.405,19	-592.405,19	3.404.294,50
1.10.2010	3.042.101,19	15.686,50	238.465,84	-222.779,34	0,00	593.500,11	-593.500,11	3.412.821,96
1.10.2010	3.043.643,80	6.530,84	234.699,45	-228.168,61	3.504,89	592.548,26	-589.043,37	3.404.518,56
1.10.2010	3.022.520,87	10.285,25	227.006,59	-216.721,34	388,58	559.651,13	-559.262,55	3.365.062,08
1.10.2010	3.017.841,91	5.748,34	227.025,66	-221.277,32	303,05	554.836,24	-554.533,19	3.351.097,78
1.10.2010	3.015.184,18	23.574,44	248.637,12	-225.062,68	1.143,17	556.055,87	-554.912,70	3.345.034,20
1.10.2010	2.828.584,31	7.774,97	259.209,54	-251.434,57	384,24	486.720,94	-486.336,70	3.063.486,44
1.10.2010	2.828.897,24	8.479,80	259.209,54	-250.729,74	0,00	486.781,50	-486.781,50	3.064.949,00
3.10.2010	2.829.142,20	10.655,64	259.209,54	-248.553,90	0,00	486.828,91	-486.828,91	3.067.417,21
1.10.2010	2.799.858,38	6.326,62	250.161,98	-243.835,36	1.753,30	449.425,85	-447.672,55	3.003.695,57
2.10.2010	2.803.854,35	56.235,08	265.146,26	-208.911,18	34.807,71	452.390,05	-417.582,34	3.012.525,51
3.10.2010	2.794.597,16	19.323,95	288.444,18	-269.120,23	21,02	452.370,59	-452.349,57	2.977.826,50
4.10.2010	2.795.905,76	65.332,94	368.309,98	-302.977,04	8.963,05	485.426,99	-476.463,94	2.969.392,66
5.10.2010	2.789.365,34	13.896,17	367.199,31	-353.303,14	2.756,14	472.408,60	-469.652,46	2.905.714,66
5.10.2010	2.789.365,34	7.840,34	367.199,31	-359.358,97	0,00	472.408,60	-472.408,60	2.902.414,97
7.10.2010	2.789.365,34	8.069,37	367.199,31	-359.129,94	0,00	472.408,60	-472.408,60	2.902.644,00
8.10.2010	2.787.865,83	3.857,26	364.039,84	-360.182,58	1.179,29	468.848,31	-467.669,02	2.895.352,27
9.10.2010	2.853.741,77	5.811,01	358.575,79	-352.764,78	3.071,85	358.540,21	-355.468,36	2.856.445,35
3.10.2010	2.854.739,82	4.370,15	356.082,57	-351.712,42	1.284,27	356.633,43	-355.349,16	2.858.376,56
1.10.2010	2.855.467,95	5.041,92	355.651,13	-350.609,21	500,00	356.693,23	-356.193,23	2.861.051,97
2.10.2010	2.829.941,97	13.212,83	381.386,21	-368.173,38	816,39	356.835,29	-356.018,90	2.817.787,49
3.10.2010	2.832.796,59	11.129,88	380.956,55	-369.826,67	272,23	357.304,59	-357.032,36	2.820.002,28
4.10.2010	2.835.024,90	12.254,70	380.956,55	-368.701,85	0,00	357.735,88	-357.735,88	2.824.058,93
5.10.2010	2.852.578,32	15.655,18	371.375,69	-355.720,51	422,49	363.971,02	-363.548,53	2.860.406,34
5.10.2010	2.866.410,43	16.660,18	368.688,00	-352.027,82	555,35	360.898,54	-360.343,19	2.874.725,80
7.10.2010	2.889.428,82	14.616,94	357.895,48	-343.278,54	2.003,87	363.387,72	-361.383,85	2.907.534,13
8.10.2010	2.929.675,83	15.472,58	337.798,91	-322.326,33	154,01	367.466,32	-367.312,31	2.974.661,81
9.10.2010	2.948.993,00	32.615,12	350.265,53	-317.650,41	13.985,02	374.018,79	-360.033,77	2.991.376,36
3.10.2010	2.981.722,35	34.076,55	350.265,53	-316.188,98	284,22	380.353,36	-380.069,14	3.045.602,51
1.10.2010	2.998.563,52	40.371,80	219.455,78	-179.083,98	407.081,54	443.367,77	-36.286,23	2.855.765,77
	<b>TOTAL</b>	<b>504.817,48</b>	<b>9.398.983,01</b>	<b>8.894.165,53</b>	<b>485.635,68</b>	<b>13.432.221,89</b>	<b>-12.946.586,21</b>	<b>90.596.043,17</b>



In case the company is headed by term contract accounting information should be useful as reports of personal responsibility directed towards a center.

Accounting must contribute to the preparation of reports based on areas of responsibility assigned to managers.

Managerial accounting focuses on reporting activities (no registration) operational data on expenditure and revenue.

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## **The Use of Payment Methods for the Settlement of International Liabilities**

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### **Abstract**

In the case of payments through a letter of credit or collection, there will be a commercial contract between the parties, in which the payment method that will be used will be clearly stipulated, and the exporter will proceed to preparing the set of documents and their transmission. If the factoring is used as a payment method, the factor will proceed to an analysis of the accounts receivable, after which the seller's accounts receivable will be taken over or not.

**Keywords:** letter of credit, collection, factoring, payment, bill of exchange

In order to settle international liabilities, the letter of credit, the collection (encashment), and the factoring are used as payment methods.

### **The letter of credit**

Is a payment method through which the issuing credit institution, acting on behalf of its client, is to make the payment to the beneficiary or to accept the payment of trade bills. The issuing credit institution can also authorize another credit institution to make payments on the basis of initially stipulated documents.

The parties involved in the carrying out of a letter of credit are:

- **the principal** (the importer) is the client of the credit institution; they initiate the letter of credit and establishes the conditions for carrying it out, pursuing the deterrence of excessive clauses in the letter of credit or of references to an earlier letter of credit;



- **the issuing credit institution** (of the importer) is the one that, at the request of the principal, undertakes the settlement of the documents issued by the exporter (the beneficiary of the letter of credit) under the conditions stipulated in the letter of credit;

- **the beneficiary of the letter of credit** (the exporter) is the one in whose favour the letter of credit was opened and who will be able to collect its equivalent value as soon as the documents attesting the execution of the contract are presented;

- **the beneficiary's credit institution** is the one that serves the beneficiary of the letter of credit.

The following two stages are necessary for the carrying out of the letter of credit:

- a. the opening of the letter of credit;
- b. the use of the letter of credit.

a. For opening a letter of credit, an economic agent which is in the position of an importer needs to submit an application, after which the credit institution will check whether the applicant has the necessary financial resources in the form of available pecuniary assets or in the form of credits obtained from the credit institution, and the two parties will establish all the necessary details and conditions.

If the economic agent does not have an account of liquid assets opened at the credit institution, then they will make use of a corresponding credit institution through which the endorsement of the letter of credit will be made and the assurance will be obtained that the payment will be made only in accordance with the content of the letter of credit.

There are situations in which, at the request of the issuing credit institution, there is also a confirming credit institution.

The notifying and confirming credit institutions will verify the authenticity and the content of the letter of credit, the solvency and reputation of the issuing credit institution, as well as the risks of the importer's country. If there are no elements of risk, then the letter of credit of the issuing credit institution can be confirmed, engagement clauses or disengagement clauses being subsequently mentioned in the letter of credit, function to its type. If it does engage, the credit institution becomes a confirming one and will assume joint liability with the issuing credit institution for completing the transaction, while if not engaging, it will only become notifying credit institution.

While the letter of credit is being carried out, partial deliveries are allowed on condition that there are clauses providing for this. Also, the term, as well as the place and date for the payment, agreement or negotiation will need to be mentioned in the letter of credit.

The necessary documents for settling the letter of credit will also be mentioned in it, the documents most frequently necessary being:

- the documents attesting the delivery of goods or the carrying out of works or services, such as the commercial invoice issued by the beneficiary of the letter of credit;
- the transport documents (the letter of air, road or railway transport, the maritime or fluvial bill of lading or other documents for dispatch);
- the insurance documents for all the duration of transportation;
- documents certifying the quality of the goods;
- the certificate of origin for the goods;
- phyto-sanitary certificate, sanitary-veterinary certificate, etc.

As soon as the beneficiary comes into possession of the letter of credit, they will have to check its content and if it does not correspond to the initial contract, the differences will be solved in mutual agreement with the importer.

b. As soon as the exporter receives the notification of the letter of credit, after the delivery of the goods, they will send to the importer the documents necessary for encashment, which are specified in the letter of credit.

If there are inconsistencies between the documents presented to the credit institution and the ones in the letter of credit, the credit institution can deny payment to the beneficiary, but it is obliged to send a notification in this respect or will make a written invitation for the principal to present themselves for clarifying the inconsistencies. If no such problems appear, the confirming institution will credit the exporter's current account, debiting the corresponding account of the issuing credit institution by sending to the latter the related documentation directly or through a reimbursing credit institution, which corresponds both to the issuing and the confirming credit institution.

The issuing credit institution will check the documentation, subsequently informing the credit institution from which they have received the documentation whether they will accept it or not. If the documentation is not accepted, the credit institution that made the

payment will return to the issuing credit institution the amount paid, the commissions and other bank expenses.

**The mechanism of an operation involving a letter of credit comprises the following stages:**

1. The commercial contract between the principal and the beneficiary is concluded, as part of which the partners have agreed upon the documentary letter of credit as payment method.

2. The principal orders its credit institution to open a letter of credit in favour of its beneficiary.

3. The document regarding the opening of a letter of credit will be given to the beneficiary before they ship the commodity, but correlated to the delivery time agreed upon in the commercial contract.

4. The beneficiary is announced that the credit institution engages itself to make the payment against the documents.

5. The beneficiary of the letter of credit will proceed to the delivery of the goods in accordance with the provisions in the contract.

6. The documents attesting the shipping of the goods are presented according to contract provisions.

7. Verification of the documents against the provisions of the letter of credit takes place.

8. The documents are handed in and the reimbursement of the amount in the letter of credit is required.

9. The amount stipulated in the letter of credit is remitted according to the request received.

10. Verification of the documents on the basis of which the payment was made for the invoice belonging to the set of documents

11. The debiting of the principal's account by the credit institution serving it

### **The collection**

The collection is a form of payment used by credit institutions with the aim of obtaining the acceptance of some documents and/or their payment or with the aim of presenting documents against acceptance and/or payment according to some instructions received from the client.

This payment method is used only when there is more trust between the business partners than in the case of the letter of credit.

It is to be noted that in the case of the collection, the credit institutions involved in the settlement of accounts do not engage to pay,

they are only managers of the commercial documents mentioned by the exporter, namely: invoices, dispatch documents or any other similar documents, but also financial documents such as: drafts/bills of exchange, promissory notes, checks or other documents of this kind.

Besides the function of making payments, in some cases the collection can also fulfil a financing function for international trade on a short-term basis, function which can be exploited both for the benefit of the importer and of the exporter, especially at present when a lot of companies complain about a lack of the capital necessary for carrying on their activity.

Like the letter of credit, the collection is regulated in a uniform manner by the International Chamber of Commerce in Paris, which, since 1956, has been regularly publishing a series of rules regarding the operations made through documentary collection. Throughout the years, the uniform rules regarding the collections acquired universal acceptance so that they have become an indispensable tool for international commercial transactions. The current version of these rules became effective in 1995 and is known as Publication 522.

Synthetically speaking, the documentary collection consists in the transmission through a bank channel of the documents attesting the delivery of a certain commodity or provision of services from the exporter to the importer and the release of these documents under certain conditions:

- against immediate payment;
- against the acceptance of drafts included in the set of documents;
- Under other conditions (for example, free of payment, the importer's debt being settled in another way).

The money is subsequently sent from the importer to the exporter through the bank channel as well. It needs to be emphasised that, if in the case of the documentary letter of credit the payment commitment to the exporter belongs to a credit institution, in the case of the collection credit institutions do not assume any payment commitment. Consequently, if they do not benefit from any guarantee, the exporter takes the risk of not being paid, or if paid, of being paid with a delay.

Although the credit institutions do not take on any payment commitment, circulating the documents through a bank channel exerts a certain psychological pressure upon the importer. If they refuse or cannot settle their debts, the importer risks worsening their relations

with the credit institution serving them, which can deny them the granting of credits or other facilities, considering them a bad payer.

The parties involved in a collection payment are:

- **the principal** is the client that will entrust the credit institution with the documents in order to be cashed in; they will be in the position of the beneficiary;
- **the drawee** is the one that needs to pay the amount of money and the one to whom presentation of the documents is to be made for acceptance or payment;
- **the remitting credit institution** is the one to whom the principal has entrusted the documents for delivery and encashment;
- **the presenting credit institution** is the one presenting the documents to the drawee.

**The main stages of a documentary collection** in which the importer's credit institution is, at the same time, both the collecting and the presenting credit institution are the following:

1. the international commercial contract is concluded between the importer and the exporter, which provides for the payment of the goods through collection;
2. the exporter delivers the goods to the importer;
3. after the delivery of the goods, the exporter prepares the set of documents that they send to their credit institution accompanied by the collection order;
4. subsequently, the remitting credit institution sends the documents and the collection order to the presenting credit institution;
5. the presenting credit institution announces the importer about the collection, informing them about the payment conditions;
6. the importer makes the payment or accepts the bill of exchange, after which they come into possession of the documents on the basis of which they can collect the goods;
7. the presenting credit institution pays the remitting credit institution the amount of money corresponding to the value of the collection;
8. finally, the remitting credit institution credits the exporter's account.

Publication 522 groups the documents used for the collection payment into financial and commercial documents. While the financial documents comprise bills of exchange, promissory notes, cheques, or

other similar instruments used for obtaining the payment of money, the commercial documents refer to: invoices, transport documents, documents of title or other similar documents, or any other documents whatsoever, not being financial documents.

Function to the instructions regarding the release of commercial documents, one can distinguish between:

- collections with release of documents against payment (D/P);
- collections with release of documents against acceptance (D/A).

As the name suggests, in the first case (D/P), the importer will receive the documents from the presenting credit institution against prompt payment. In the second instance (D/A), the presenting credit institution will release the documents either against acceptance of the bills of exchange payable at a future date included in the set of documents, or against signing a letter through which the importer pledges irrevocably to make the payment at the specified term.

### **Factoring**

In accordance with the Government Emergency Ordinance no. 10 of 19.04.1997, factoring consists in the possibility of economic agents to transfer part of or all their accounts receivable to one or some institutions specialized in such operations on the basis of a factoring contract and in exchange for a commission.

From the perspective of the included services, the factoring is defined as a complex financial product or a contract relationship between the seller and a factor that combines the crediting activity, taking the risk of not cashing in the accounts receivable, services of tracking and encashment of debts, as well as book-keeping.

The coverage through factoring of the risk of not cashing in the accounts receivable is done without requiring actual guarantees. Thus, for foreign operations, one of the concerns of the institution assuring the credit through factoring is the protection against the risk of lack of payment generated by relations of foreign trade of Romanian companies, resulting from the experience of the respective institutions in the administration of client portfolios. The advantage is obvious, given the fact that recovering the accounts receivable from a foreign debtor is almost impossible, and a law suit can last several years, involving costs that may exceed the value of the damage.

Factoring is also regarded as a contract concluded between the seller, respectively the supplier of goods and services, and the factor

(which can be a credit institution or a specialized financial institution through which the seller's accounts receivable resulted from sales of goods or services are taken over in order to be later cashed in from the debtors).

**The parties involved in a factoring operation are the following:**

- **the seller**, which is a producer or seller of goods, provider of services or works and which, based on their contract with the factor transfers to the latter all the accounts receivable materialized in invoices, with the specification that these have been ceded and they are to be paid by the factor.

- **the factor**, which is a financial institution (a credit institution, a specialized insurance and reinsurance company or another financial institution) and which, in exchange for a commission will pay to the seller all the accepted accounts receivable, and will later encash the receivables from the seller's debtors.

- **the debtors**, which are the seller's clients, the buyers of the goods, the beneficiaries of the services or works and which are notified about the transfer of the seller's rights onto the factor, as well as about the debtor's obligation to pay the invoice directly and only to the factor.

**The factoring operation involves the following stages:**

1. the release of the invoice and the delivery of the goods and services;
2. invoice acceptance;
3. invoice transfer;
4. financing;
5. payment is made;
6. financing of the difference.

The elements that need to be taken into consideration for client selection are the activities that are not fit for or are excepted from factoring operations.

- a. The main activities that are not fit for factoring are the following:
  1. construction;
  2. naval workshops;
  3. production of fishing utensils and tools;
  4. production of jewellery, fur, and other luxury products;
  5. production of cosmetics;

6. services area, excepting international freight transport services and those services that allow for written confirmation from the beneficiary that the service has been carried out, corresponds to their requirements and will be entirely paid for when due.
- b. The following shall be excepted from factoring:
  1. reliance on one or a small number of debtors;
  2. release of invoices before the delivery of goods or provision of services;
  3. release of invoices for partial deliveries of goods;
  4. release of invoices for execution stages of a project whose completion determines the nullity of the previous invoices;
  5. release of post-dated invoices;
  6. advance payment or payment on delivery;
  7. sales through a salesperson;
  8. overdue invoices or invoices whose encashment period exceeds 180 days;
  9. release of invoices for samples (as these will not be paid if the partner does not order the respective product).

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## **Study on the Particular Accounting Practices of Small and Medium Companies**

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### **Abstract**

This article aims to analyse the particularities of small and medium companies in Romania in order to propose a set of practices in accounting terms for these economic entities. To this end has started from the best practice recommendation adopted by the European Commission in November 2008 and guidelines developed by the Small and Medium Practices Committee of the International Federation of Accountants, trying to adapt them to a concrete situation, to the particular situation of small and medium enterprises of Romania. The study features were analysed economic and psycho-social, determined by the mentality of small and medium business owners in Romania and their attitudes about accounting information.

**Keywords:** accounting, SMEs

The importance of small and medium enterprise sector in a country's economic welfare comes from the fact that a sector of thriving small and medium enterprises means increase, innovation, and jobs. According to Organization for Economic Cooperation and Development small and medium enterprises represent over 95% from enterprises and for 60-70% of jobs in OECD countries.

In Romania, small and medium enterprises represent the majority of the economic entities and the most part of the jobs from the private sector and gross domestic product. We assist at an increasing in

the number of SMEs, during the 2003 – 2008 period, from 347,064 in 2003 to 532,148 in 2008.<sup>1</sup>

The Report of the National Council of Private Small and Medium Enterprises in Romania states that in 2009 the number of small and medium businesses increased by 2600 (6.3%) compared to 2008. The sector of small and medium enterprises represents 97,8% from the total number of enterprises. Mostly small and medium enterprises engaged in trade, being in 2009 about 18 thousand units, or 41.2% of total small and medium enterprises. In manufacturing, there have enabled 5,1 thousand small and medium enterprises, or 11,7% of total small and medium enterprises.

Also, because studies have shown that professional accountants are considered to be competent consultants and trustworthy, being the most popular source of external advice and support for small and medium, were created by international professional bodies concerned with the development of specific standards for small and medium enterprises.

The most active and important of these bodies is the Committee for Small and Medium Practices International Federation of Accountants. The Committee has formal working procedures, teams on projects, strategic and business plan, a communication plan and a permanent technical director. Among his responsibilities was the development of international standards - mainly, audit and certification, ethics and accounting - by providing information in the process of normalization.

Committee assignments are aimed at ensuring the relevance of standards for EMP's and SMEs and their efficient implementation in terms of cost. Of a particular importance for small and medium practices implementation within SMEs have materials developed by this committee: the Guide of Using International Standards on Auditing and Certification for Auditing Small and Medium Entities, the Guide of Quality Control for Small and Medium Practices, The Practice Management Guide for Small and Medium Enterprises, published in June 2010, comprising 8 modules largely independent on issues such as planning, human resources management and customer relationship

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<sup>1</sup> Cioarna, Al., Cilan, T. - „The impact of the contemporary economic crises on the small and medium enterprises”, Theoretical and Practical Approaches in Economics, 2010

management and is accompanied by the forms and task lists and an internal procedures manual.

Regarding the European Commission, in November 2008 it adopted a true accounting manual for small and medium enterprises which includes detailed information on good practice: USERS AND THEIR NEED FOR FINANCIAL STATEMENTS (users and needs), ACCOUNTING SYSTEMS (internal and external accounting, tax accounting), ACCOUNTING FRAMEWORK (accounting principles and principles for external financial statements), RECORDING OF ACCOUNTING TRANSACTIONS (Financial records, Double-entry bookkeeping and Chart of accounts), COMPONENTS OF FINANCIAL STATEMENTS (Profit and loss account, Balance sheet, Cash flow statement, other financial statements)<sup>2</sup>

Next, we analyse how these recommendations are applicable to small and medium enterprises in Romania.

From the outset, it should be noted that in Romania under current law (the Accounting Law of 2009 and 3055 OMPF) accounting system is unique for all businesses regardless of their size. All companies in Romania are obliged by law to organize their financial accounting activity into double entry and use the General Plan of Accounts unlike other European Union countries where legislation is adapted to various types of companies.

3055 OMPF provides the format and content of annual financial statements, accounting principles and rules of recognition, evaluation, removal of records and elements presentation in the annual financial statements, drafting rules, approval, audit / verification, according to law, and publish annual financial statements, some rules on management accounting, General Plan Accounts, content and function accounting accounts, establishing rules and regulations on organization and management accounting and reporting in accordance with the requirements of state institutions, for all users. The rules in this Order shall apply to all companies regardless of legal form or size of their.

The only changes that occur are those related to the content of annual financial statements creating a basic set, including balance sheet, the profit and loss account, statement of changes in equity, cash flow statement, and the explanatory notes to the annual financial statements,

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<sup>2</sup> Final Report of the Expert Group “Accounting system for small enterprises - Recommendation and Good Practices/November 2008

and an abbreviated balance sheet model, and a profit and loss account and explanatory notes, the other components are optional.

In these circumstances it is obvious that we can not speak about small and medium recommendations regarding accounting organization, but using the 3055 OMPF created and recommendations of international organizations can offer concrete practices adapted to the particularities of these entities.

This is necessary because it is totally useless and irrelevant for an SME to apply the same rules as large companies and very large ones. This statement is valid for other models and accounting procedures such as accounting and inventory forms.

As can be seen in the presentation, components developed by the European Commission recommendations are based on the users of accounting information and their information needs. This approach is in full accord with the basic objective of providing images that accurate accounting of company assets and results of all categories of users. 3055 OMFP, section two, shows issues in use of accounting information and qualitative characteristics of information.

Here it is necessary to make some observations on the existence of these users and small and medium enterprises.

The importance of accounting as a source of information for owners and managers of small enterprises and their different stakeholders is obvious.

Theoretically, at small enterprises are the same categories of users, but there are a few references. Practically, in Romania if we refer to most businesses from this category, they organize their accounting information not only for information needs but also for the fact that is required. Starting from this sad reality we can say that the main user of accounting information is the state by tax authorities.

Where companies have or intend to contract bank loans and financial institutions are users of information provided by small and medium enterprises.

Yes, indeed, there are business owners who want to know the regular economic and financial situation of their enterprises or managers (often in Romania in these types of businesses even owners) who make decisions based on accounting data, but unfortunately too few. Why? I have identified two causes: the first is that many times, in these companies they do not apply the principle assets of the business entity and it gets to be confused with the property owners themselves, and the

second is that many managers / owners have the impression that they know everything about their business and can make decisions without consultation with the chartered accountant, who often can stop the momentum of the great business (and usually he knows why ...). These two cases may explain, in part, many financial failures in connection with these enterprises. Another reason could be to establish minimum initial capital for limited liability companies at 200 lei. As most companies in this category are limited liability companies, many business owners turn this minimum capital. How clearly this is not enough to cover the costs of establishing the company, is borrowed by a company owner, automatically leading to the financing entity, which in future will lead to negative equity.

In terms of customers and suppliers as users of accounting information to these companies either carry out operations with the same suppliers and customers for long periods of time, or operations are paying cash on the spot or small values. In these circumstances knowledge through accounts, knowledge of business partners is not so important.

Employees and the public are not too interested in these entities because of their small size and importance.

The second aspect of the analysis on small and medium firms to establish best practice is on accounting categories that can or should be organized at their level. In most EU countries in this category are not required to organize the management accounting (internal or managerial). In Romania under the Accounting Law (Law 82 of 1990 with subsequent amendments and updates), it is mandatory even for small companies, which means additional costs for these companies without necessarily the need for information internal to the organization of these records request. Managerial accounting concepts are based precisely on the idea of a strict accounting of the user tailored information internally, the only beneficiary of these records, which means that it should be organized only for certain periods or certain sectors of the business. In Romania this requirement is impossible due to the organization of these permanently records.

Financial accounts or general in charge of processing the external flow is present and regulated at the level of SMEs, which is perfectly correct with a little observation, which is the subject of this article, namely the need to adjust certain aspects of financial accounting to the specifics of these entities.

In addition, the two types of accounts that businesses regardless of their size must not forget to organize tax component. The only feature that benefit small businesses on this level is able to submit statements of the main current (those relating to the consolidated social contributions and VAT) each quarter.

Given the previously stated it is obvious that the difference between a large enterprise accounting organization and a low or very low is almost non-existent! In these circumstances the work of an accountant's work is almost as laborious as in the case of small and large those (works the same, both accounting and tax, but differs from the value of transactions). But a small business, most often can not afford to pay an accountant or accounting services accounting firm or an accounting practice as a large enterprise. The result is that the vast majority of small and very small businesses will pay small amounts of accountants and accountants will provide services to these categories of enterprises on the extent of the payment (crappy quality), being forced to provide services to more many small (sometimes tens ...) to get decent amounts. It's obvious that tax and accounting statements prepared under these conditions are likely to be incorrect, with all ensuing consequences (lack of confidence among users of financial reporting and thus adversely affect the capital cost of enterprise development, medium-term uncertainty long, business leaders and exposure to acts punishable by the laws of the land and deeds, tax evasion and uncertainties in determining the taxable base, and applying the correct calculation of tax liabilities for other users of financial statements: banks and other credit institutions insurance institutions, investors, employees, etc.. misleading when making their own decisions about the business concerned, for the population: not determining the correct tax liability may cause the Government to introduce new taxes or increase existing ones for accounting in question: the insecurity of the "business" and its exposure to civil or criminal penalties provided by law).

The solution of such problems could be, in my opinion, simplify accounting organization to these categories of company, by establishing a completely separate set of flexible rules, adapted and completed strictly business peculiarities of simple guides to good practice, allowing accountants to leading accounts of these entities in order to facilitate the work without harming the quality of accounting information.

But it seems that in Romania, unfortunately, things take a different path because, under proposed amendments to the draft accounting law in December 2010 accounts of these entities will not only simplify, but also new types of entities before they could simple entry accounting organizations (freelancers, professional offices) will be required to apply the double entry accounting!

Fundamental accounting principles applicable to small and medium enterprises are subject to both the European Commission's report for small and medium-sized practices and Order 3055 in 2009.

According to the Commission Report, in the most European countries accounting principles applicable to such companies are less than for large firms.<sup>3</sup>

In Romania, however, explicitly required the nine principles OMPF 3055 (according to Section VII of the Finance Order 3055/2009) are required for all businesses regardless of their size.

According to the Principle-based accounting, in Romania, practiced accounting is accrual accounting in which revenues and expenses are recognized when they occur. In my opinion, when an enterprise is a micro or even a very small enterprise, it might be more appropriate to use cash basis accounting. In this case the accounting and the resulting financial statements are prepared on a cash basis. A cash basis means that a cost or an income is accounted at the equivalent amount of cash paid or received for it. Some European states use cash basis accounting for taxation of small enterprises and other consider it sufficient for external accounting of micro enterprises in their local GAAP.

Very important for SMEs is how to interpret the application of the principle of materiality. According to this principle, if information is of such magnitude that it has no influence on the user's judgment and decision-making, it can be left out. The accounting transactions of an enterprise need to be recorded in the accounting books. Some form of recording will be essential to all businesses for the day-to-day management of their operations and the fulfilment of unavoidable governmental obligations (e.g. taxation). It is well known that inadequate record keeping is frequently associated with failures in small businesses even if it is not actually the direct cause of failure (*Final*

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<sup>3</sup> Final Report of the Expert Group "Accounting System for Small Enterprises, and Good Practices Recommendation / November 2008, Annex 4

*Report of the Expert Group "Accounting system for small enterprises - Recommendations and Good Practices/November 2008).* For record keeping purposes the enterprise can use different methods, small businesses can choose those methods that are best adapted to the complexity (or rather lack of complexity) of its activity. With other models and procedures of accounting method should be developed separate sets of rules for small businesses. We can refer here to the accounting and inventory forms. Thus, the records required to be used are often too many and too complex for small businesses, with many completing data (completely irrelevant, most times!) and many signatures (provided that if these businesses have one employee or business owner only!). Sadly, in this case, is that if certain sections of the document (which is usually typed) not working (no data because they are not relevant or necessary) organs of control may consider these documents as incomplete and as following their registration in the accounts is offense!

Also, in the case of inventory, the procedure is almost the same for all categories of businesses with few exceptions in the composition of the inventory committee (Order no. 2861/2009 of 9 October 2009 for approval of the norms on the organization and inventory of assets, liabilities and equity). Commendable is the fact that the rules for conducting heritage inventories established by Order 2861 of 2009 provides that "the entities whose number of employees is low, the inventory can be done by one person. In this situation, responsible for inventory accuracy is the administrator, officer or another person who is liable for entity management".<sup>4</sup>

Although this study focuses on small business accounting does not mean we can not refer also to tax abuses faced by small businesses because it is unfair to put small businesses on the same level in terms of taxation, with larger ones. Often, a large fine that does not mean a significant financial effort for a large company, applied to a small business can result in its bankruptcy. Also penalties, interest and delay penalties imposed for late payment of tax, burden on small businesses more. All these while the damage caused to the state budget by these companies is much lower than that caused by the large taxpayers, however, the state is more sympathetic towards the latter ones.

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<sup>4</sup> Order no. 2861/2009 of 9 October 2009 for approval of the norms on the organization and inventory of assets, liabilities and equity



Eliminating the income tax for small businesses and the introduction of minimum tax were so many ways to increase the tax burden on these categories of businesses and I am confident that these measures have led only to a voluntary closure or bankruptcy of many small businesses without having increased the state income.

We must not forget the multitude of authorizations, licenses, taxes, fees and costly formalities to be fulfilled by any company regardless of its size, depending only on the domain of activity (fire protection, safety, environmental protection, etc.).

### **Conclusions**

In conclusion, in Romania, taking into account the importance and the many small and medium enterprises, the state, through its bodies should be more concerned about the welfare and development of these entities, through the promulgation of measures encouraging both accounting and tax plan.

An accounting measure that we propose based on the study are: eliminating the mandatory of management accounting by those entities; simplification of financial accounting in line with the need of accounting information at the level of business and complexity of their work in accordance with the principle of relative importance; greater flexibility relative to contents of forms used by the entity's accounting and eliminate unnecessary forms; possibility of using a cash accounting system for small and very small,

Other features of these entities and adopted measures that can improve their work and reduce the failure could be: the minimum registered capital required for limited societies. Possibly could establish differentiated levels of activity depending on the subject. The value of the minimum capital should be sufficient to enable and support business start up to obtain their own resources; fines and delay increases differentiated by size of enterprise, simplifying of tax procedures to these enterprises by reducing the number of statements.

The accounting measures will necessarily be accompanied by the development of special guidelines for best practices for small and medium enterprises in Romania, because the guidelines used in the European Union does not correspond of the situation of our country.

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Final Report of the Expert Group “Accounting System for Small Enterprises - Recommendation and Good Practices (November 2008)

Legea contabilității nr.82 din 1990, cu modificările și actualizările ulterioare.

Ordinul nr. 2861/2009 din 9 octombrie 2009 pentru aprobarea Normelor privind organizarea și efectuarea inventarierii elementelor de natura activelor, datoriilor și capitalurilor proprii.

Ordinul Ministerului Finanțelor Publice nr. 3055 privind reglementările contabile conforme cu Directivele Comunităților Europene.

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## **Research on the diversity of vegetable production in Arad County**

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### **Abstract**

Our study focuses on the fruit and vegetable farmers in Arad County aiming to offer a clearer image on vegetable and fruit production. This paper is part of a larger study and only wishes to address aspects related to the fruit and vegetable farmer's property forms and product diversity.

**Keywords:** agromarketing, agrobusiness, vegetable production, fruit product diversity

### **Introduction**

Vegetable production was an important part of Arad County's exports before '89, and we would only mention the greenhouses that practically no longer exist today. Also there were a large number of small scale fruit and vegetable farmers grouped in production areas that provided for the county's markets. Today, fruit and vegetable production is fragmented and grouped around diverse vegetable categories due to the soil's quality being determined for quality as well as vegetable type.

Thus Arad has areas acknowledged as specialized vegetable crop sites such as: Curtici for tomatoes, Semlac for yellow and red watermelon, Podgoria for grapes, Socodor for cabbage, Turnu for greens and Seleus which is acknowledged as the largest greenhouse and sun foil vegetable production site.

Due to the fact that after 89 C.A.P's ceased to exist and people got back their lands, production areas registered a significant decrease in size. Additionally mass production was negatively affected and could not provide large quantities of fruits and vegetables any longer. A second factor that played part in the decrease of vegetable/fruit production in Arad County was the heavy emigration of German ethnics which constituted the core of vegetable farmers.

Qualitative and quantitative evidence shows that fruit and vegetable production is weak, almost nonexistent, and the lack of a dedicated data centralizing system can not provide relevant information to show whether an association of small farmers could produce enough as to make their entry on a market dominated by multinational companies.

The objectives of the study were multiple; however this paper will only focus on those objectives that concern product diversity and the farmers' technological equipment level. Thus we present the following objectives:

- Knowledge on Arad's fruit/vegetable farmer's forms of property was considered in this study as a primary development motor. We have also emitted a hypothesis according to which the most usual form of property, covering more than 50% of vegetable/fruit farmers, is the Agricultural farmer certificate;
- The share of fruit/vegetable production out of the total agricultural activity was determined as an object in order to highlight the number of those involved exclusively in the fruit/vegetable production;
- The size of the fields designated for fruit/vegetable cultures was also considered as an objective for creating a clearer image about the size of said fields, knowing the fact that greenhouse crops necessitate significantly smaller areas compared to the regular agricultural approach;
- The diversity of vegetable and fruit production was another objective thru which we tried to identify an answer for the problem of production diversity fluctuations related to prices registered for the previous year. We have hypothesized that over 50% of farmers modify their crop in relation to prices registered for the previous years;

### Materials and Methods

In order to select a representative sample group we have used a mix of methods: *the areolar method* (Pop, 2004) through which we selected areas recognized as important in fruit/vegetable production and *the stratified random survey method* (Pop, 2004) applied to select the top 30% farmers as designated by the local town halls' records and by the size of the land owned in relation to the production type applied (greenhouse, foil, agricultural terrain).

The study was made on the basis of a questionnaire, administrated through three field agents during a three month period (July-September 2011) having a number of 201 respondents. Data was processed with the aid of a statistical program.

### Literature review

According to the preliminary data from the 2010 General Agricultural Census there are 3.856 agricultural holdings, 99.20% of which lack legal personality (individual agricultural enterprises, authorized individuals) and 0.80% which have legal personality (agricultural societies, research facilities, town/city councils and other public institutions).

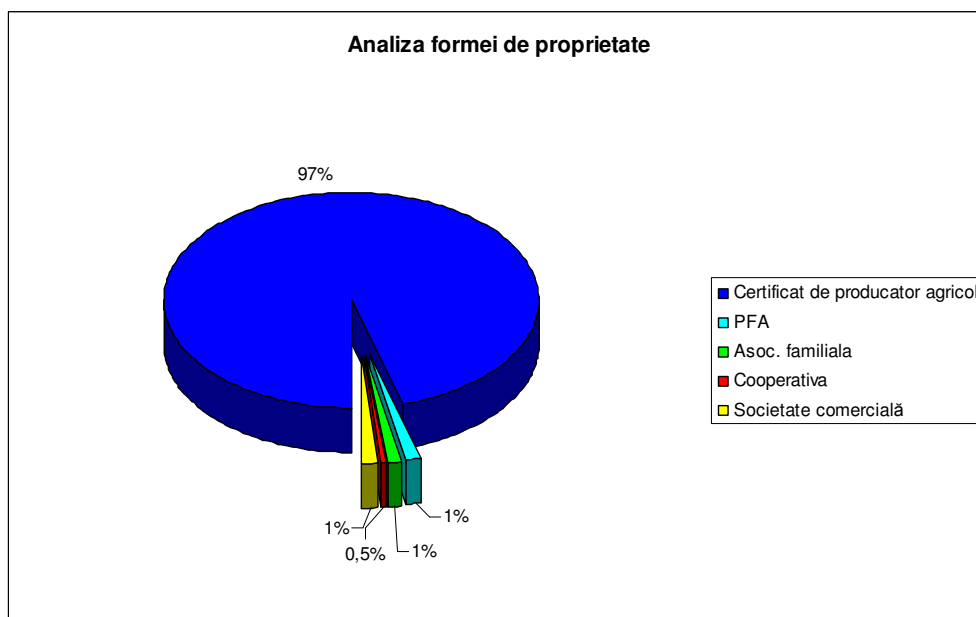
After 1990 (Zahiu, 2010), the share of vegetable production areas registered a permanent fluctuation, first of all because of the way production is managed, secondly because of the numerous work force required and thirdly because the high costs associated with pest control. From 2001 onwards imported vegetables have found a way to our domestic market because of their lower price point even though they are of lower quality.

Even though Romania posses an important fruit growing area, low efficiency and reduced group cohesion in fruit production determines the lack of a competent offer on the market.

The Romanian fruit/vegetable sector does not satisfy the market's rhythmic sale needs fact which combined with the lack of specialized storage areas practically dismisses the vast majority of producers. Organizing producers in professional groups may create an important competitor for imported fruits and vegetables and may help promote a durable development of the rural sector.

### Results and Discussion

Questionnaire respondent distribution for recognized vegetable producing areas: 28% are from Felnac, followed by 26% from Seleus, 24% Siria (Galsa and Iermata being included), Curtici 22% (Macea being included) and finally Lipova with 0.5% of respondents.



Graphic no.1. - Analysis of the ownership forms

Graphic 1 shows that the most occurring ownership form (97%) for vegetable/fruit producers in Arad is the Agricultural farmer certificate, the remaining forms having less than 1%.

The number of people involved in agricultural activities, represented in percentages, is as follows: two (42%), one (21%) three (18%) and respectively four (16%).

Applying the *hi square* test, the void hypothesis according to which there is no connection between ownership form and the number of people involved is rejected, validating an interdependence hypothesis between the two before mentioned categories. The Spearman correlation coefficient has a value of 0.159 corresponding to a 0.024 significance threshold (hence less than 0.005) which leads to the conclusion that there is a weak but direct and positive link between the two; the more

complex the ownership form (agricultural farmer certificate, cooperative, company) the larger the number of people involved. It must be specified that in the time frame the study was conducted, changes in the Romanian labor code imposed the introduction of employment records for day laborers, which in turn created confusion amongst the vegetable/fruit producers, fact that can be a perturbing factor in validating these data.

A statistical analysis of activity data shows that 22% of the respondents are also active in zootechnics; amongst these, 70% declared that the share of zootechnics related activities sum up to 10%-30%. 30.5% declared that they also cultivate grains, 67.3% of these appreciate grain related activities to vary between 10% and 50%.

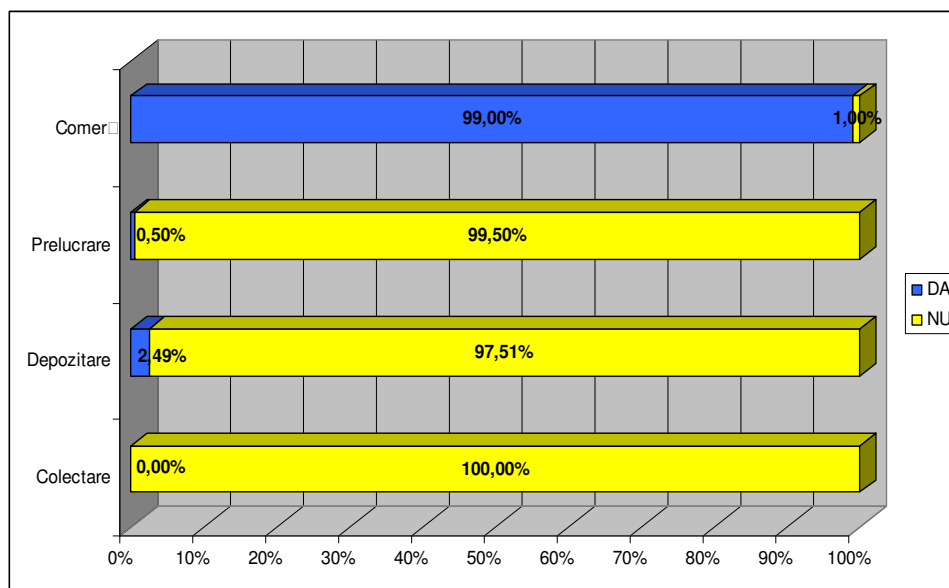
Amongst the questioned subjects none declared that they provide agricultural equipment services, however a few considered that they would dispose of the necessary resources.

96% of the interviewed subjects declared fruit/vegetable production as their main business, 56.7% of which are 100% dedicated to fruit/vegetable production. The relevance of the data resides in the fact that it proves the relevance of the sample group regarding the subject investigated and validates it as representative.

Further analysis of the data gathered shows that 8.81% of respondents (17 people) dedicate 30% of their agricultural activity to fruit/vegetable production, 8.81% (17 people) dedicate between 30% and 60% to fruit/vegetable production while the vast majority of respondents 82.38% (159 people) dedicate over 60% to this activity.

The structure of the chosen sample group is considered representative because the majority of the questioned subjects are directly involved in fruit/vegetable production, only 17% having grain cultivation as their main priority.

As for related agricultural activities (graphic 2) 99% of the respondents declared that they are engaged in commercial activities with the produced fruits/vegetables, 99.5% declared that they are not involved in processing products and only 2.49% have storage areas designed to deposit them. None declared to be involved in collecting products from other farmers.



Graphic no. 2- Percentage of the related agricultural activities

These percentages show that agricultural products are sold directly, without being processed (or even packed) by the producers.

Table no. 1

Analysis results for the size of agricultural surfaces

Cultivated area	Grains		Fruits		Vegetables	
	Number of subjects	Percentage	Number of subjects	Percentage	Number of subjects	Percentage
0 - 1 ha	15	7.5%	49	24.4%	102	50.7%
1 - 10 ha	34	16.9%	25	12.4%	5	2.5%
10 - 50 ha	17	8.5%	4	2%	0	0%
over 50 ha	17	8.5%	0	0%	0	0%
do not cultivate	125	62.2%	0	0%	0	0%

Study results show that the vast majority of those involved in fruit/vegetable production own agricultural surfaces less than 1 hectare, only a small percentage, of under 5%, own land between 1 and 10



hectares. Fruit production presents different results, 24.4% of owners having under 1 hectare of land, 12.4% between 1 and 10 hectares (mainly watermelon cultures) and only 2% own more than 10 hectares. This land distribution reinforces the idea that alone, without associations, those involved in fruit/vegetable production can not produce large enough quantities to negotiate with large markets (export, en-gross markets, and chain stores). In order to gain a better perspective on fruit and vegetable production diversity, but without aiming to present a definitive estimate on production size, the questionnaire included questions referring to vegetable/fruit kinds, the nature of the production process (field of greenhouse) and the estimated product quantity for 2011. Table 2 shows vegetable production taking into account the average size of the production lot, product groups, average production estimate, the percentage of vegetable/fruit producers from the total number of respondents and the desire to cultivate the same vegetables next year.

Tabel no. 2

## Result analysis concerning vegetable product diversity on arable land

	Production on arable land				
	Average crop area (ha)	Average production amount (tons)	Number of producers	Producer percentage from number of respondents (%)	Continuing production (%)
1. Consumption and industrial tomatoes	0.095	1.53	50	24.88%	100.00%
2. capsicums, peppers	0.035	1.29	21	10.45%	100.00%
3. cucumbers	0.016	0.6	5	2.49%	100.00%
4. potatoes	0.018	0.6	14	6.97%	93.33%
5. green onions, onions, garlic	0.088	67.34	32	15.92%	100.00%
6. cauliflower, cabbage, , French turnip, salad, spinach, broccoli	0.165	77.8	75	37.31%	96.15%
7. carrots, parsley, celery, parsnip	0.073	46.95	39	19.40%	97.50%
8. beans, peas, eggplant	0.084	9.3	44	21.89%	100.00%
9. corn	0.467	6.16	12	5.97%	100.00%
10. watermelon	1.66	54	60	29.85%	96.77%

We can assert that most respondents cultivate cabbage varieties (37.31%) followed by watermelons (29.85%) onions (15.92%) and tomatoes (24.88%). Other vegetables fall in the 10% and under 10% however it is clear that a large variety of vegetables are produced on arable land. As for production continuity we can conclude that most producers want to cultivate the same type of vegetable, fact that invalidates the hypothesis of a significant dynamic in production, i.e. producers change next year's crop according to the current year's demand.

Table no. 3

## Result analysis concerning vegetable product diversity in greenhouses

	Greenhouse production				
	Average crop area (m <sup>2</sup> )	Average production amount for 2011 (tons)	Number of producers	Producer percentage from number of respondents (%)	Continuing production (%)
1. Consumption and industrial tomatoes	467	4.03	103	51.24%	94.17%
2. capsicums, peppers	307	1.22	66	32.84%	100.00%
3. cucumbers	245	1.07	31	15.42%	100.00%
4. potatoes	100	0.40	2	1.00%	100.00%
5. green onions, onions, garlic	86	43.00	21	10.45%	100.00%
6. cauliflower, cabbage, French turnip, salad, spinach, broccoli	215	0.85	39	19.40%	88.63%
7. carrots, parsley, celery, parsnip	156	0.79	33	16.42%	100.00%
8. beans, peas, eggplant	290	1.34	22	10.95%	91.00%

Greenhouse vegetable production (table 3) presents an increased diversity; production quantities though obtained on seemingly smaller surfaces, can be considered large as size standards are concerned.

The most cultivated vegetable in this category is the tomato (51.24%), followed by capsicums (32.84%) and cabbage varieties—mainly salad (19.40%). Yearly production fluctuation wise there are no important modifications, refuting the hypothesis that vegetable producers modify their production according to last year's demand.

Production stability (including the type of vegetable as well as the quantity) from one year to the other is beneficial for the producer because it constitutes a selection criterion for every collector wishing to gather the products in order to sell larger quantities to merchants.

Table nr. 4.

## Result analysis concerning fruit product diversity

	Average crop area (ha)	Average production amount for 2011 (tons)	Number of producers	Producer percentage from number of respondents (%)	Continuing production (%)
Apples	16.65	304	6	2.99%	100.00%
Pears	0.1	0.3	2	1.00%	100.00%
Prunes	8.5	57.84	6	2.99%	100.00%
Apricots	0.2	0.3	2	1.00%	100.00%
Peaches	3.83	27.74	9	4.48%	100.00%
Nectarines	0.135	0.225	3	1.49%	100.00%
Cherries	2.1	12.3	4	1.99%	100.00%
Sour cherries	0.2	0.36	3	1.49%	100.00%
Grapes	0.79	137.77	19	9.45%	100.00%
Nuts	0	0	0	0.00%	0.00%
Almonds	0	0	0	0.00%	0.00%
Hazelnuts	0	0	0	0.00%	0.00%
Berries	0	0	0	0.00%	0.00%
Blackberries	0	0	0	0.00%	0.00%
Hackberries	0	0	0	0.00%	0.00%
Strawberries	0.01	300	1	0.50%	100.00%
Elder	0	0	0	0.00%	0.00%
Other	0	0	0	0.00%	0.00%

Based on a result analysis we can conclude that as far as fruit production is concerned, only grape producers have a significant percentage (9.45% of respondents) the rest of the fruits being cultivated by a number of producers that do not represent more than 5% of the respondents. Due to production technologies we cannot acknowledge yearly fruit variety fluctuations. There were no answers indicating a will to diversity production.

### Conclusions

The most widespread form of property for fruit/vegetable farmers in Arad is the Agricultural farmer certificate (covering 97% of the sample group); there is also a direct, positive connection, none the less weak, between the property form and the number of people involved in the agricultural activity. The starting hypothesis according to which over 50% of farmers have as their main form of property the Agricultural farmer certificate was validated.

The vast majority of those involved in vegetable production own production surfaces less than 1 hectare, only a small group of 5% owning between 1 and 10 hectares. As for fruit production, 24.4% of those sampled own orchards smaller than 1 hectare, 12.4% registered with areas between 1 and 10 hectares (watermelon production) and only 2% own more than 10 hectares. This land distribution reinforces the idea that alone, without associations, those involved in fruit/vegetable production can not produce large enough quantities to negotiate with large markets (export, en-gross markets, and chain stores).

The hypothesis according to which vegetable/fruit producers typically own agricultural surfaces less than 1 hectare - 500 square meters for fruit producers respectively - was verified and validated.

As for product diversity it was proven that the entire range of vegetables is cultivated; fruit production on the other hand only covers half of the demand. The hypothesis according to which vegetable production varies yearly was disproved because 90% of the farmers (for each type of vegetable) manifested their intent to cultivate the same vegetable again.

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## **Study on the Degree of Technological Equipment Used by Vegetable and Fruit Producers from Arad County**

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### **Abstract**

Our study on vegetable and fruit producers from Arad County intends to offer a clear cut image on the vegetable and fruit production, but also on the producers' technological endowment . This paper is part of a large work and we wish to present aspects regarding the technological endowment and the producers' content towards the middleman companies.

**Keywords:** agromarketing, agrobusiness

### **Introduction**

After 1989, the Agricultural Production Cooperatives disappeared, the existing technological equipment was divided or left neglected. The farmers have got back their land properties, so the production area has been reduced and the mass production has disappeared. There are no written evidences regarding the vegetable and fruit quantitative and qualitative production of Arad county. The lack of a system able to collect and process these data cannot offer a starting point to build up strategies necessary for the formation of the association of small producers in order to offer the product quantity necessary for entering the multinational markets.

From the technological point of view, the vegetable and fruit producers, namely those who have greenhouse or solarium productions, which require small investments, are able to keep the step with

producers from other European countries. Great advantage for native producers is the fact that their products are tastier than those imported, but their disadvantage is that the price is higher than that of the import products. The targets of the work were many, but this paper deals only with the topic regarding the technological endowment level of the vegetable fruit producers and we state that more than 50% of the producers need technologies they do not have.

### Material and Methods

For selecting the sample, we have used a mix of methods: areolar method (Pop,2004) due to which, we have selected those areas that are known as important vegetable and fruit production areas; the first 30% of the producers were selected out of the townhall evidences according to their owned surfaces, type of production (greenhouse, plastic thin sheet or agricultural area)

The study was done using a questionnaire managed by 3 inquiry operators, from July till September 2011, the number of total inquired people being 201. The datas have been processed by means of a statistical programme. For being able to measure the technological endowment degree, a set of questions (Table no.1) has been formulated, wich contains an answer that points out the need of a technological equipment, an answer to point out its holding, an answer regarding the degree of its usage in the agricultural activity.

Tabel no.1

#### Questions regarding the Technological Endowment

Technological name	Would it be necessary?		Do you have it now?		What percentage of the owned equipment do you use?
Farm tractor	Yes	NO	Yes	No	%
Equipment for land working	Yes	NO	Yes	No	%
Pesticide equipment	Yes	NO	Yes	No	%
Combine	Yes	NO	Yes	No	%
Covered warehouse	Yes	NO	Yes	No	%
Closed warehouse	Yes	NO	Yes	No	%

Handling area	Yes	NO	Yes	No	%
Fridge room	Yes	NO	Yes	No	%
Equipment for washing, selecting, sorting	Yes	NO	Yes	No	%
Packing equipment	Yes	NO	Yes	No	%
Means of transport	Yes	NO	Yes	No	%

### Literature review

According to Letitia Zahiu (L.Haziu coord, 2010), analyzing the value evolution of the agricultural production, agricultural prices and agricultural efficiency, in preadhering period, the indicators that reflect the global efficiency of the agro food sector indicate a decline between 2005-2007.

Under the circumstances in which the prices of intermediary consumptions rise, namely the intermediary consumptions are not efficiently used, if the fixed capital stocks are destroyed, there will be no investments, the labour force will be unefficiently used, then the subsistence state of agriculture will be kept, namely the discrepancy between the native farmer and the European one will increase.

The low agricultural production of the farmer keeps Romania's agriculture at a low level of competitiveness, both on the unique market and on the native one. For generating an economic increase in agriculture, besides the rising of the products' quality level, it is necessary to create an efficient distribution national network.

The agricultural labour productivity shows the subsistence state of this domain, due to the weak technico-material infrastructure and to the low out-turn. The available labour force, existing in the rural area, can be used both in the agricultural sector and in the non agricultural activities, assuring a lasting development of the rural area.

### Results and Discussion

Agricultural activities have been grouped in: animal breeding, cereal production, vegetable - fruit production and agricultural services. 22% of the people have declared that they are also involved in animal breeding activities, and the great majority have declared that animal breeding represented 10 up to 30% of their activities. 30.5 % are involved in cereal production and the share of cereal cultivation from all the agricultural activities is between 10% and 50%.

96% are dealing with vegetable and fruit production, out of them, a percentage of 56.7 are 100% busy with vegetable and fruits, fact that demonstrates the sample representation.

None of the questioned persons declared that they offered services using their owned equipment

As far as the production areas are concerned, the great majority produce vegetables on areas under 1 ha, only a small percentage of 5% have areas between 1 and 10 ha. Fruits are produced in a percentage of 24.4% on surfaces below 1 ha, 12.4% on areas between 1 and 10 ha (here is to be mentioned the water melons and melons) and only 2% on areas larger than 10 ha.

The results of the analyses regarding the technological endowment degree have been got through their procession with a statistical informatics programme, using the answer association, answers indicating the necessity of owning an equipment and its physical owning.

Regarding the farm tractor, 50.5% have declared that they will need one, as they have none, fact that „slightly” refutes our hypothesis, according to which more than half of the farmers do not have the necessary equipment.

There are 18.5 % of those farmers who have a tractor, but they have declared they will not need an excess of technology which can be either the result of investments in the future or the result of the not using the land maximum capacity.

As far as the need of land working equipment is concerned, one can notice that, out of the 33.8% of the persons who have declared they need equipment, 53.5% own it, while 46.5% do not have it.

Also, we have to mention that out of the 13.4% of the farmers who have declared that they do not need land working equipment, 46.6% own this equipment, so there is a surplus of equipment.

Owing the pesticide equipment indicates the fact that 52.7% of the questioned persons who have declared that they need it, really own it, but 47.3% of those who have declared they need it, do not own it.

A high percentage of 26.7% out of the questioned people, in spite of the fact that they have not declared they need these equipments, own them, but these are not used, so, there is a surplus of technology that can be taken into account in the future, as a potential production capacity, in the case the producers wish to increase their production.



Regarding the owning of the combine, associated with the need to own one, we have noticed that 38.6% (22 persons) of the ones who have declared they need a combine, have the combine, while the great majority of 61.4% (35 subjects) have no combine. A great number of people, 64.2% (129 subjects) have declared that they do not need one and really do not own one. This great number of persons is involved in vegetable growing, namely closed greenhouses where they cannot use such an equipment.. We have found out that there is a percentage, 2.3% (3 subjects) who have declared they do not need a combine but they own one.

Analysing the answer results, namely the association regarding the need to have a covered warehouse and its owning, one can notice that only 42.3% of those who have declared they need one, have one, and 11.7% of those who have declared they do not need one, still have such a warehouse.

Regarding the closed warehouse, associated with the need to have it, only 41.5% of those who have declared to need such a warehouse own it and 58.5% do not have it. So, a surplus of 15.1% has been found out.

As far as the handling area is concerned (meant for washing, selecting, packing) the results indicate that only 20.6% of those who have declared they need one, have it, and a great percentage of 79.4% do not own it.

Speaking about the fridge room, 43.3% (87 persons) have declared that they need it and out of them only 12.1% (12 persons) have the room, the rest, i.e. 87.9%, lack it. There is a percentage of 4.5% who have not answered this question. In this case there is no surplus, none has declared that they do not need such a room but they still own one.

Analysing the results of the association between the need of an equipment of washing, selecting, sorting and its owning, one draws the conclusion that out of 36.8% (74 subjects) who have declared they need one, only 23% own it. There is a smaller percentage, 3.1%, out of those who have declared they do not need it but still own this equipment

The result of the association between the need of having a packing equipment and its owning shows us that 34.3% have declared that they do not need it, only 13% own it and 87% do not have such an equipment. There is a small number of subjects who, in spite of the fact that they have declared that they do not need a packing equipment, still have it (1.5%).

Speaking about the endowment of the producers with means of transport, the result of the association between the need of having one and its owning, out of the 110 persons (54.7%) who have declared that they need a means of transport, 59.1% own it, but there is a percentage of 14.9% (30 persons) who do not have it though they have declared they do not need one.

Tabel no. 2

The analysis of the area where the agricultural products are sold

Selling Area	Independent %			Through collecting firm		
	Cereals	Vegetables	Fruits	Cereals	Vegetables	Fruits
In the own area	5.47%	17.91%	7.46%	2.49%	1.49%	1.49%
Outside the area, in the bordering area	6.97%	20.40%	7.46%	1.00%	1.49%	0.00%
Outside the bordering area, in the county	7.96%	29.35%	19.90%	2.99%	6.47%	1.00%
Outside the county, in the region	7.46%	16.42%	6.97%	1.00%	19.40%	0.00%
Outside the region, in the country	1.49%	2.99%	0.50%	1.00%	4.48%	0.00%
Abroad	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%
In the EU countries	0.50%	0.00%	0.00%	1.00%	0.00%	0.00%
In East Europe	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
In other countries	0.50%	0.00%	0.00%	0.00%	0.00%	0.00%

Analysing the data (percentage of total subjects), one finds out that independent selling of cereals is achieved in the county (7.96%) followed by region (7.47%), namely outside the living area (6.97%). A very small percentage (0.5%) is sold in the country, in the UE countries, East of Europe, even in other non UE members. It is worth mentioning that cereal sales through collecting firms, arrive in the EU countries in very small percentage.

Direct vegetable sales, in the highest percentage, 29.35%, arrive in the county, a percentage of 20.40 % are sold outside the living area but in the bordering area, 17.19% are sold on the living area markets, 16.42% are to be sold in the region and a very small percentage of



This segment of the analysis was designed to highlight experiences that vegetables and fruits producers had with various companies that have bought their products in order to resell the production.

From the transport point of view, analysing the answers offered by the 13 subjects (6.47%), the obtained score is 4.38%, it means a high degree of content towards this type of service.

Regarding the purchasing price, we have found out that the 20 subjects (9.95%) indicate a score of 3.4, pointing out that the price they obtained was satisfying for them

Studying the results of the 15 subjects (7.46%), experience regarding the depositing services has got a score of 4.53%, indicating a degree of satisfaction.

Concerning the got consultancy services, the equipment offered to be lent namely the packing services, being under 5% of the subjects, we cannot take them into account as being representative .

### Conclusion

On the ground of the issued hypothesis, i.e. over 50% of the producers lack technology, it was validated, for a great part of the technological equipment, but there were elements for which the hypothesis was invalidated (Table no. 4)

Table no. 4

Analyses Results of the Answers regarding Technological Capacities

Technological name	Would it be necessary? (% of total answers)		Do you have it now? (% total answers)		Hypotheses (% those who need it)
	Yes	No	Yes	No	
Farm tractor	49%	40%	43%	58%	49% - validated
Equipment for land working	63%	28%	53%	43%	54% - invalidated
Pesticide equipment	56%	37%	42%	54%	53% - invalidated
Combine	28%	65%	13%	82%	38% - validated

Covered warehouse	48%	46%	26%	70%	42% validated	-
Closed warehouse	47%	46%	26%	67%	42% validated	-
Handling area	48%	44%	11%	83%	48% validated	-
Fridge room	49%	43%	7%	88%	12% validated	-
Equipment for washing, selecting, sorting	36%	48%	10%	77%	23% validated	-
Packing equipment	34%	50%	6%	79%	13% validated	-
Transport means	54%	34%	53%	43%	59% invalidated	-

For validating the hypotheses, we have taken into account only those persons who have declared that they need the respective technology. So, the hypotheses have been validated for: farm tractor, combine, covered warehouse, closed warehouse, handling area, equipment for washing, selecting, sorting namely packing.

The hypothesis has been invalid, namely more than 50% of those who need equipment also own it: equipment for land processing, equipment for pesticide, namely means of transport.

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