

2012

”

”

—

. - :
 - . - " "

. - :
 - -
 . - -
 . - - " "
 . - - " "
 . - -
 . -
 . -
 . -
 . -

. - :
 - . - " "

. - :
 . - . .
 . - . .
 . - . .
 . -
 . -
 . -
 . -
 . -

,
 -
 ,
 -

”

”

,

:

—

III

IV

V

,

VI

V

VII

-

VIII

IX

,

1. . - . . (-)
 - 19

2. . - . .
 (-)
 30

3. (-),
 ,

 (-),
 . - (-)
 - 39

4. ,
 . -
 (” . - ” -)
 - 44

5. . -
 (” . - ” -)
 - 53

6. . - (-)
 -
 „ - 2020” 59

7.	. . . . . (	- )	..... 66
8.	. -	( - )	..... 73
9.	. -	, (-)	Delphi Xe 78
10.	Assoc. Professor Asalos Nicoleta, PhD („Ovidius” University, Constanta, Romania)	Competitive Clusters – The Role and Influence in Increasing the National, Regional and Local Competitiveness	..... 87
11.	. - . . . .	( „ . . . . ” - ) -	..... 91
12.	Doc. dr Janka Krsto Dimitrova („Goce Delcev” University – Stip, Macedonia)	Saving – Investment – Development	..... 103
13.	. . -	( - )	..... 109
14.	. . -	( - )	..... 116
15.	. . -	( - )	..... 121

16. . . . -	( - )	..... 127
17. . . .	-	..... 133
	( , )	..... 133
18. Harutyun Gevorgyan, Hrachik Javadyan,		
Gurgen Yeghiazaryan (Armenian State		
Agrarian University, Armenia)		
Impact of Agricultural Extension and Consultation		
on Farmers' Knowledge and Awareness of Water		
Resources Management in the Republic of Armenia		137
19. M.Sc Peter Fatur		
(University of Primorska, Slovenia)		
Innovation Expenditure and its Efficiency		
in Slovenian Manufacturing Sector		153
20. . . .	( - )	..... 161
21. . . .	( „ . . . )	..... 167
22. . . .	( - )	..... 173
23. . . .	( - )	..... 178

24. PhD Candidate Arjeta Hallunovi, Doc. Dr. Arif S. Murrja (University „Aleksander Moisiu”, Albania) The Analysis of Financial Reports for the Construction Company „Teuta-Construction” in the Context of 25 Other Building Companies for the Fiscal Year 2008	186
25. („ ”) 	195
26. E („ ”) -	200
27. - (’ -)	208
V	
28. - .. (” · :	217
29. - .. (, ,	224

30.	. -	( - )	.....229
31.	. -	( - ' )	.....236
32.	Assistant Professor, PhD, Biljana Ciglovska (International University of Struga, Macedonia) Current Problems and Alternatives in the International Agricultural Trade		.....245
33.	. -	( - )	.....254
34.	. -	( - )	.....260
35.	. -	( „ . . ” - )	.....268
36.	Adriana Grigorescu, Ph. D. Full Professor (National School of political Studies and Public Administration Bucharest, Romania) Potential Factors to be Considered in a Regional Structural Model		.....273
37.	. - . .	, ,	.....280

38.	. -	( - )	.....287
39.	. -	( - )	.....296
40.	. -	( - )	.....303
41.	. -	( - )	.....309
42.	. -	” - ( ),	.....316
	(„ . .	(-)	
	. .	- -)	
	-		.....316
43.	. -	( - )	.....322
44.	. -	( - )	.....328
45.	Dr. oec.	,	
	Mg. math.	,	
	Mg. chem.	( )	.....337
46.	. . -	( - )	.....344
		-	

47. . . -	( - )	.....	350
48. . . -	- ( - )	.....	357
49. . . -	( „ ” - )	.....	363
50. . . -	( - . )	.....	370
51. . . -	( - . )	.....	375
52. M. Ed Maja Marinovi	(Faculty of Education, Zagreb, Croatia)	Economic Geography Factors	as a Precondition for Tourism Development
		in Republic of Croatia	382
53.	( - . )	.....	389
54. . .	(-)	„ ”	396

55.	. . .	” –	)	.....	406
56.	.	( –	)	.....	412
57.	.	-	( – )	.....	419
58.		( –	)	(2007-2011)	428
59.	.	( –	)	.....	435
60.	. . .	( –	)	.....	444
61.	.	” –	)	.....	451
62.	.	” –	)	.....	458

63.	( - )	.....463
64. . .	( - )	.....470
65.	( - )	.....477
66. . .	( - )	.....485

V

,

-
 . - . .
 -
 ,
 ”1.
 ”
 2. -
 (Greener,
 B., 2009)³,
 4.

1.

25 , e , Web, PCs,
 , WTO, NATO
 5 ,
 ,

¹ Stiglitz, J. Bail Out Wall Street Now, Change Terms Later. Democracy Now. Oct. 2008.
² Robert O’Brien. Global Political Economy. Evolution and Dynamics. 3rd ed. New South Wales, Australia, 2010.
³ Greener, Beth. The New International Policy. New Zealand, 2009.
⁴ Herman, M., Schwartz. States Versus Markets. The Emergence of a Global Economy.- The Re-emergence of Globalization. University of Virginia, USA, 2009; Adrian, Kay. Global Health Governance, UK, 2009.

⁵ ” ”
 , ” ,
 ” .

); (-
); -
 ; -
 ; -
 ” ”,
 ” / ”.
 6(.1):



1.

” ”
 • 5-7 9 2050,
 ; -
 ; -
 ; 40%
 ; -
 ; -
 6

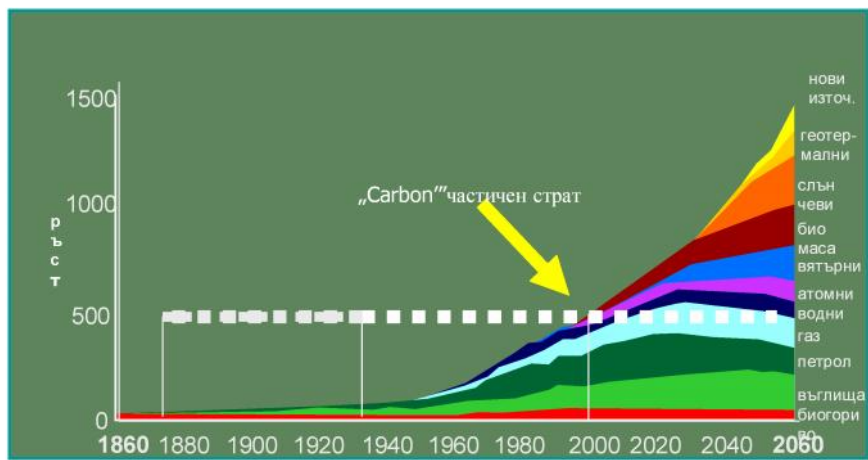
(Jerome C. Glenn. www.stateofthefuture.org)



2.

- , software, IT
- ” ” Tele- , Tele- ;
- . Tele- , Tele- , Tele- ;
- / ” - ” ;
- ” , ;

⁷ www. „EuroSOFT”. com; „European State of the Future Index”.



1. „ () ” (1860-2060)

2.

” ”

-

-	(<1990)	+ - (>1990)	+ -
/	,	,	/ o / " - " "

8 . Capdemini. UK., BSC, 2008.

(. 1).
 ” ” ” / ”
 9. ” ”
 ” ”
 ” ”
 10
 •
 20- 21 .
 (Gupta S.,
 T., Steenburgh, 2008)¹¹.
¹²
 , 2008)¹³.
 ” ”
 ” (Voicu, M., R.P. Lazarescu, 2006)¹⁴ .
 ” ”
 ,¹⁵ . . „Life Cycle Assessment” (LCA),

⁹ Data, Data Everywhere. The Economist, Feb. 25, 2010 ([http:// www.economist.com](http://www.economist.com)); www.sas.com/resources/whitepaper/wp_16715.pdf.
¹⁰ , , 2012.
¹¹ Gupta Sunil, T., Steenburgh. Allocating Marketing Resources. Harvard Business School, Boston, MA, 2008.
¹² Zott, R.,Mit, L., Massac. The Business Model: Theoretical Roots, Recent Developments, and Future Research, WP-862, IESE, Sept.. 2010 (<http://www.iese.edu/research/pdfs/DI-0862-E.pdf>).
¹³ , , 2008, 34.
¹⁴ Voicu, M., R.P. Lazarescu. Considerations Regarding The Role of The Communication Strategies in The Change process. Economics, Bourse, 2006.
¹⁵ „Social and Environmental Progress”, Report, 2008.

„Lean Six Sigma” (LSS),

5- е „S”¹⁶

15

17,

„ ” -

(Versteeg, G., Bouwman N. 2008)¹⁸ (3).



3.

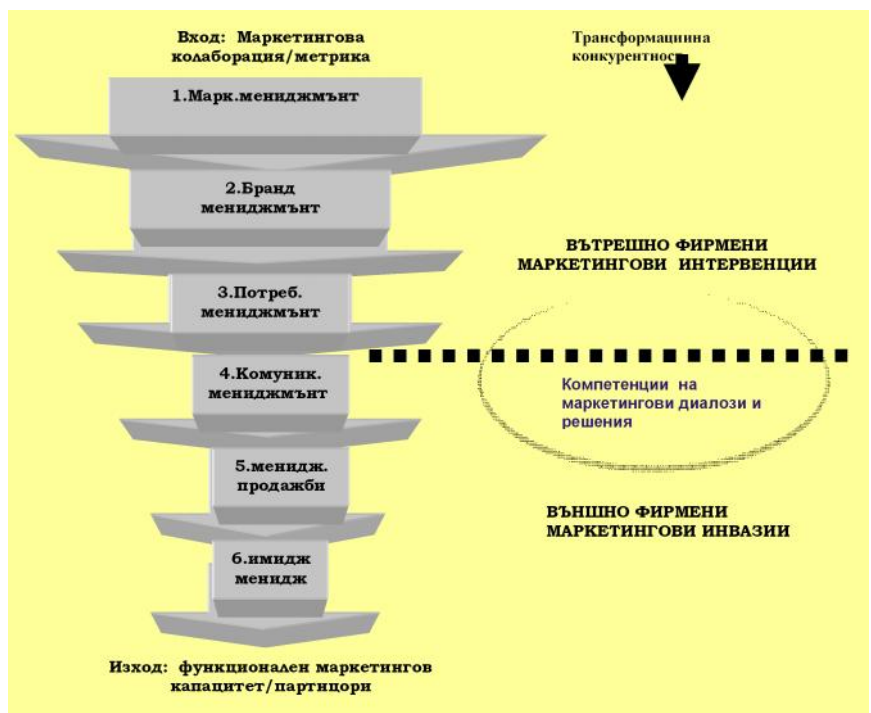
¹⁶ 5- „S” ,: S1 „Sort”; S2 „Set in order”; S3 „Shine”; S4 „Standardize”; S5 „Sustain” (http://www.isixsigma.com/me/lean_manufacturing).

¹⁷ <http://www.wnvironment.expert.com>

¹⁸ Versteeg, Gerrit, Bouwman Narry. Business Architecture. A new Paradigm Tolerate E-business Strategy to ICT.2008.

¹⁹ The 2020 Challenge Report, 1998-99 (www.2020fund.org).

„ (4).²⁰
 / „
 / (, , 2012)²¹.



4.

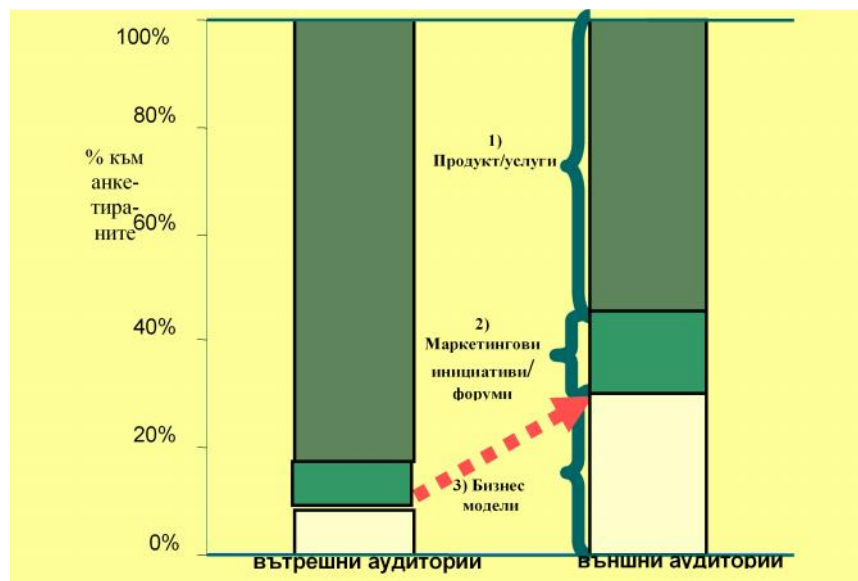
²⁰ . The „Anatomy of a World Class Organization”. Marketing Leadership Roundtable. Marketing Forum/ Corporate Executive Board, 2010.

²¹ , . , - , 2012.

3.

(. 2).

(MROI),



. 2.

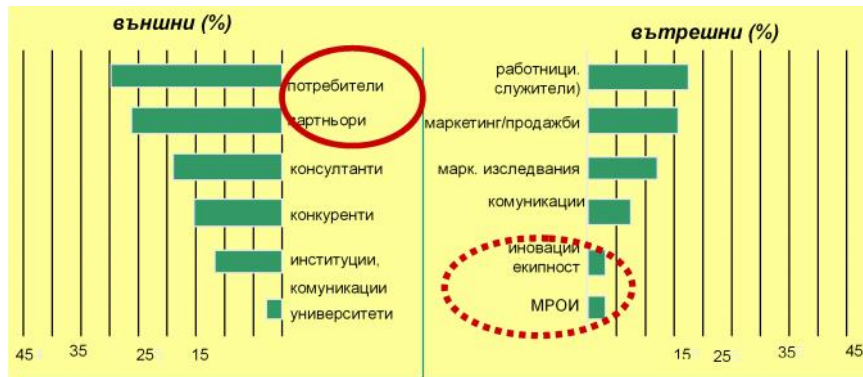
22

2008/2010 .. 25

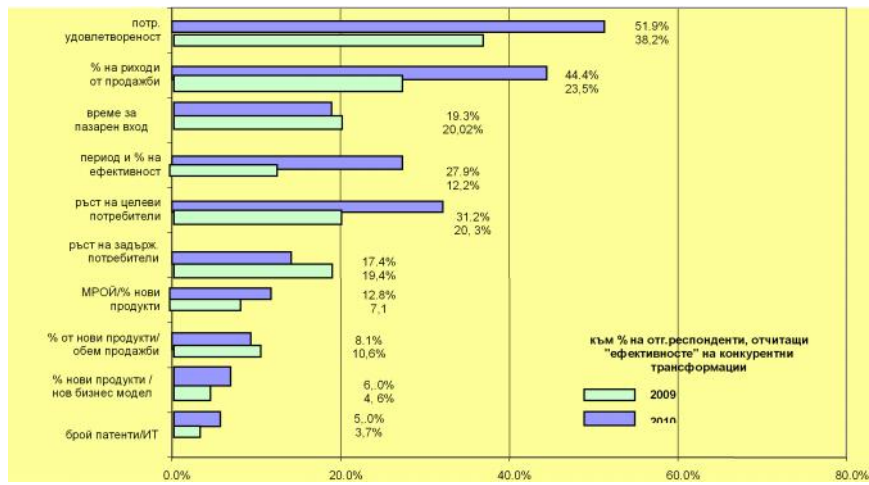
3

²³ Global Diagnostic ECG Market. (www.piribo.com/publications/medical_devices/global_diagnostic...,23.4.2010. 14:11).

(.3).



. 3.



. 4.

(2008/2010)

, / / , / - -
, , (.4). -
, ” ” -
- . -
, .

“ () ” 1934 .
[15, 66].

70- ,80- ,90-

[1]. " " 1993

("), " "

... ..

." [1, 13-14].

" [2, 35]

[2, 33].

" [2, 45].

100

10

, ”

” [2:653, 659].

”

”.

(-

), . .

[4],

[14]

[3],
[5, 6, 7],

[9],

” ”?
”

”

-

”

”

-

,

-

,

,

,

-

,

-

-

,

,

/

-

.

[8] -

• , : , -

• , (, -

• ,) (-

• ,). (-

[17]. (, -

• , , -

• , -

• ; [17]- , -

• (,) . -

• , -

• - ; ; -

• [8] : , -

• ; -

• ; -

• ; -

• ; -



1. . . . (2000)
2. . . . (2004)
3. . . . (1997)
4. : . . . ,- , 1997, N 2. . . . (2012) ” (. . .) .
5. Beck, U. (1999) What is Globalization. Cambridge: Polity Press.
6. Beck, U. (1992) Risk society: towards a new modernity. London: Sage.
7. Beck, U. (1999) World risk society. Cambridge: Polity Press.
8. Chobanova R. (2011) Innovativeness of a national economy. The case of Bulgaria G: Lambert Academic Publishing.
9. Drucker, P. (1969) The Age of Discontinuity; Guidelines to Our Changing Society. New York: Harper and Row.
10. Global competitiveness report 2011-2012 <http://reports.weforum.org/global-competitiveness-2011-2012/>.
11. Europe 2020. A European strategy for smart, sustainable and inclusive growth – COM (2010)2020.
12. Innovation union scoreboard 2010, <http://www.proinno-europe.eu/inno-metrics/page/innovation-union-scoreboard-2010>.
13. . . . (2011) INNOVATION UNION SCOREBOARD 2010. The Innovation Union’s performance scoreboard for Research and Innovation. 1.2.2011.
14. Hayek, F. (1945) The Use of Knowledge in Society. - American Economic Review, 1945, XXXV, 4, www.econlib.org/library/Essays/hykKnw1.html.
15. Schumpeter, J. (1934) The theory of economic development. Cambridge, Mass.: Harvard University Press.
16. Schumpeter J.A. (1939) Business cycles, N.Y.: MacGraw-Hill.
17. World Bank (2012) Going for Smart Growth. Making Research and Innovation Work for Bulgaria. Report 66263-BG.

-

• • • •

- ,

• • • •

,

• • • •

- ,

• -

-

-

-

,

,

-

-

,

.

-

.

-

-

,

,

,

,

-

,

,

-

• •

-

-

,

,

.

-

:

,

,

,

,

-

,

[5],[6].

-

20%

-

,
 .
 .
 -
 ,
 .
 2009/28/ [1]
 .
 ,
 10,6
 .
 ” ”
 :
 ,
 ,
 .
 ,
 .
 ()
 -
 .
 .
 ,
 ,
 3,6 ÷ 3,8 ⁴ ₃ ³ ₃
 8
 .
 28 ÷ 30 ³ . 1 ³ ³
 , 1,6 ÷ 2,0 . 1 ³ ³
 , 0,7 ³ .

95%
5%
DDGS (Dried Distillers Grain with Solubles),
(
1 1 410 . 375 . 330 .-DDGS,
300 .,
95%
41

640 . . . -

250 260 . . . -

47 . , -

.

-

,

**

,

,

,

-

,

,

.

,

,

,

,

.

,

.

,

,

-

.

:

-

-

[2],

.

,

,

;

- (), : -
 () -
), (600
), ' (-
), ;
 - , [3], [4] -
 ; -
 - .
1. -
 . 2011. -
 2. , „ . , . , . . 2011. -
 „ -
 3. 3(12)'2010, , „ . , . 133-136. -
 4. 2010”, ; ” LVII, 1, 2010, . 300-306. -
 5. , 2010, 49, 9.2, . 71-74. -
 „ „ , . . , . . , . . , . . : -
 6. „ „ , 2010. . 814. (ISBN 978-966-388-318-2). -
 „ „ , 2011. . 704. (ISBN 978-966-651-889-0). -

—

• • • • • ,

• -

” • ”

• ” • ”

(1991, 1997, 2004, 2011 .).¹ -

²

[3, . 159 .] ,

. ³

[4, . 446 .].⁴

- . 1:

¹ - ”(). ” / -

² . [1], [2], [3], [4].

: , , , , (),

, . , , , (=

-92; -59; -39; -446; 230; -116; -15.

³ -997 . [6], [7], [8], [9], [10].

⁴ 2004 . , , -

()-[4, . 446 .].

/

/	
1.	?
2.	()?
3.	?
4.	?
5.	(,)?
6.	?
7.	, ?

6), (.2), (.3),
(.4), (.5),
(.7).⁵

” ” /

— ()

:
(50)
- (50);

⁵ 2,3,4,5,6,7
()
. -29%; 11 15 .-24%; 16 20 .-21%; ” 1 5 .-18%; 6 10
” (20) 20 .-7% ” -
1989 ..

- (. 2).
2
()
6

?				
• - (- 25%)	35	23	18	S = ,001 = ,108
• (47%) -	46	47	49	
• (- 24%)	16	25	28	
• (4%) -	3	5	5	
	100	100	100	

(. 2) - -
, -
.
, -
- , ; , ,
, (. ,).
, (-
) - ,

⁶ 1991-2011 .
:)
(1991 - 13%, 1997 - 16%, 2004 - 21%, 2011 - 25%;)
- (19% - 7% - 5% -
4%);)
(34% - 33% - 27% - 24%);)
(34% - 44% - 47% - 47%).

(7)

?				
• (-47%)	55	45	43	S = ,009 = ,084
• (-33%)	23	36	37	
• (-20%)	22	19	20	
	100	100	100	

), .8

(.4, .5)

7 1997-2011 .
:)

(1997 - 26%, 2004 - 33%, 2011 - 34%);)
(25% - 19% -
19%);)

8 ()

()

4

() 9

()?				
• (-30%)	21	33	40	S = ,000 = ,151
• (-22%)	14	23	30	
• (-48%)	65	44	30	
	100	100	100	

5

() 10

?				
• (-41%)	43	41	40	S = ,000 = ,151
• (-21%)	9	22	32	
• (-38%)	48	37	28	
	100	100	100	

⁹ 1997-2011 .
 :) (1997-18%, 2004 - 20%, 2011 - 22%);)
 (49% - 49% - 47%);) , (33% - 33% - 31%).

¹⁰ 1997-2011 .
 :) (1997-16%, 2004 - 17%, 2011 - 21%);)
 (41%-37%-38%);) , (43% - 46% - 41%).

— ;) - - - -
 — , ; - .4.
 ; , ; - - -
 ; , ; -
 .
6
 ()
 12

?				
• (- 50%)	56	51	40	S = ,000 = ,111
• (- 14%)	6	15	24	
• (- 36%)	38	34	36	
	100	100	100	

, - - - -
 - - - -
 - - - -
 . 6.
 ()
 () , , - , (- ,)

11 - .5.
 12 1997-2011 . :)
 (1997 – 13%, 2004 – 13%, 2011 – 14%);)
 (34% – 38% – 35%);) (53% – 49% – 51%).

()
13

()?				
• (-35%)	33	37	28	S = ,000 = ,139
• - (-30%)	45	26	28	
• (-35%)	22	37	44	
	100	100	100	

-
-
(.7).
,
(-
)
:)
;)
;
:
:
(.2); -
(.4)
(.5) ; (.7); : -
(.3); -
(.3); -
(.4) (.5); -
(.6).
:
(.3); -
(.3); -
(.4)

¹³ 1997-2011 . :)
(1997 - 24%, 2004 - 36%, 2011 - 35%);) (28% -
24% - 31%);) (48% - 40% - 34%).

(.5); (.4) (.5) ; -
 (.6); (.7); : -
 (.2); (.4) (.5) ; -
 (.6); (.7). -
 : -
 (.3); - (.3); - (.4) -
 (.5); (.2); - (.6); : -
 (.4) (.5) ; -
 ; (.7).

1. , . : " „ . - ", 1993.
2. , . („ - 1991” - 1997”). „ „ . ”, 2002.
3. & . „ „ . ”, 2005.
4. , . : 1991–2004 . „ „ . ”, 2010.
5. , . . „ , 2009.
6. , . „ , 2011.
7. , . „ , 2007.
8. , „ . – , . . , 2010.
9. , . & – . . . , 2011.
10. Davidkov, Ts. Bulgaria & Entrepreneurs. S., University Publishing House „St. Kliment Ohridsky”, 2006.

” (12 / 2012). ” .
, , , , .

Abstract: *In environment of high tech industries is expected the information technology to help solving complex problems by expediting business operations and provide more effective business processes.*

Expectations towards information technology (IT) are direct and effective support for business objectives. IT management is included in the formulation of strategic business objectives and preparation of strategic plans that lead to the implementation of these strategic objectives. IT act as agents of change and innovation in the organization and this role is characteristic of IT due to constant innovation in IT and dynamics in this sector.

Business processes are the backbone of any organization. The success of any organization is determined by how well run these processes. Therefore, implementation of a management system for business processes in many organizations is seen as a priority project.

Optimization of IT resources is highly relevant. The aim is to optimize one of the main reasons for the introduction of technologies such as virtualization, cloud technologies, Grid technologies. The most important optimization factor that IT can provide the organization is the optimization of time, execution time for queries, reports, analyzes and forecasts.

Key words: *Information System, Business Processes, IT resources*

CIO,

2010 .,

，
，
—
，
（
）。

10

IV

V

“ ”

web

(firewall)。

2012 9% 6 \$42 IDC.

(BPM)

Business Process Management (BPM)

BPM,

BPM

Planning) ERP

. BPM
(Enterprise Resource

Gartner,

BPM

BPM

BPM

•

•

- , ; -
- , ; -
- - , -

. BPM

BPM -

. BPM -

. BPM

- -

- -

- -

- -

- -

- -

1. How Work Gets Done: Business Process Management, Basics and Beyond, Arjit Singh Mahal, 2010.
2. Best Practice Advice for Succeeding in Business Process Management, Gartner Research, December 2011.

-

„ 2020”

. -

-

„ 2020”

,

2010 .

-

2000 .

, -

-
2010 .

,

-

.

„ 2020”

-

.

,

-

,

-

.

:

1.

,

,

-

2.

,

,

3.

,

,

-
-

.

,

„ 2020”,

.

,

,

-

”

”

”

2020”.

,

-

1.	2020 .	20%				
2.		1990 .	20%			
3.	20%				1.	
						-
						-
						-
1.					1990 .	
2.				(
3.)			-
				(. ,		-
	1000)
						-
	”			” ² ,		-
						-
						-
						-
						-

¹ ec.europa.eu/europe 2020.
² UNDP, Human Development Report, 2011.

$$Ix_i = \frac{x_i - x_{i\min}}{x_{i\max} - x_{i\min}} \quad (1)$$

(2),

$$Ix = \sqrt[3]{Ix_1 \cdot Ix_2 \cdot Ix_3} \quad (2)$$

x_i

x_i

1. -

2. -

-

-

-

-

-

-

-

-

0 1. -

-

-

-

-

-

-

-

-

-

-

„ 2020” (1). -

-

-

-

-

-

-

(), -

-

- 2010 .

I_x	I_{x_1}	I_{x_2}	I_{x_3}	I_x
1.	0,690	1,000	0,930	1,00
2.	1,000	0,724	0,642	0,890
3.	0,552	0,627	0,948	0,785
4.	0,610	0,640	0,827	0,780
5.	0,639	0,419	1,000	0,729
6.	0,971	0,358	0,657	0,686
7.	0,379	0,517	0,899	0,624
8.	0,913	0,472	0,354	0,590
9.	0,531	0,356	0,793	0,587
10.	0,625	0,258	0,917	0,584
11.	0,755	0,205	0,939	0,580
12.	0,993	0,481	0,234	0,526
13.	0,603	0,186	0,947	0,516
14.	0,350	0,279	0,914	0,482
15.	0,863	0,216	0,461	0,474
16.	0,690	0,186	0,641	0,467
17.	0,791	0,160	0,580	0,447
18.	0,444	0,171	0,918	0,438
19.	0,798	0,177	0,430	0,415
20.	0,661	0,095	0,855	0,395
21.	0,466	0,103	0,989	0,376
22.	0,610	0,084	0,896	0,371
23.	0,762	0,059	0,985	0,366
24.	0,632	0,054	0,930	0,320
25.	0,0036	0,095	0,867	0,009
26.	0,906	0,243	0,0013	0,007
27.	0,285	0,001	0,898	0,004

	-	.	-
	,	,	-
			-
		0,400.	-
	,	-	-
	.	,	-
		.	-
	,	,	.
		(	0,649
0,757).			
	,		-
	.		-
	36	34%,	
			-
	,		0,400.
			-
	(0,0036),	,	.
	-	,	
		0,900	(
0,971	0,906).		0,993,
		,	-
		0,400,	,
	,		
	(0,0013),	(1,000)	.
-		0,900.	
	,	.	
			-
			-
	(0,302),	-	(79%),
,		,	-

							-
							-
	(1,000),						-
	0,400,		0,800.			70,4%	-
							-
							-
							-
							-
							-
							-
	:						-
	1.						-
							-
	2.						-
							-
	3.	-					-
						.41%	-
							-
	0,900.						-
	4.	-					-
						.70,4%	-
							-

• • • •

-

, . -
-

, -

, . -
-
-

, -

[1].

, , -
-

, -

, -

, -

- , -

, -

, .

„ [1].

„ [2].

„ [1]

„ [1].

[1]:

;

-	,	;	-
-			-
-			-
-	;		-
-		,	-
-		;	-
-	,		-
		,	-
	,	-	-
	,		-
		.	-
			-
			-
			-
1)		:	-
		,	-
2)		;	-
			-
3)			-
		.	-
			-
			-
			-

[2].

[2].

[1]:

I.	,
1.	,

2.	
3.	
4.	,
5.	,
II. ,	
6.	
7.	, : ;
III. ,	
8.	, , ,
9.	,
10.	,

- , - , -
, , ,
, ; , , -

- , -
, , ,
- ; -
- ; -
- ; -
, ; -
- ; -
, ; -
- ; -
- ; -
, ; -
- ; -
, ; -
- ; -
, ; -
, ; -
, ; -
, ; -
, ; -
, ; -
, ; -
, ; -
, ; -
, ; -

, -

.

1. / , , : [] ;
 : , 2011,
 .450.
2. , . . . []: . / . .
 , ∴ - ,, ”, 2004, .197.

. -
 -
 , , , -
 , . -
 , , , -
 1. " -
 " () -
 / -
 , -
 , , -
 , -
 " " -
 1965 .
 2.
 1977-1980 .
 Apple, Sinclair, Atari, Commodore. , 1982 .
 620000 "3. -
 " (),

¹ , , , , 2001.
² If You Can't Stand the Coding, Stay Out of the Kitchen. <http://drdobbs.com/184404040>.
 19.03.2012.
³ Blundell, G., Personal computers in the Eighties, BYTE January 1983.

IBM PC MS-DOS 1981-1982
 1988 PC-XT 20% \$1000, PC-
 5.25", 3.5".
 BluRay, DVD,
 2011 300-400
 5.
 30 1980

⁴ Computer Changes In The 1980'S. <http://www.thepeoplehistory.com/80scomputers.html>. 19.03.2012.

⁵ Software: Global Industry Guide. http://www.researchandmarkets.com/reports/41526/software_global_industry_guide. 20.03.2012.; Global Software Industry Guide. DataMonitor. http://www.infoedge.com/product_type.asp?product=DO-4959. 20.03.2012.

1994-1995 .

1995 .

2000-2007 .

2007 .

iPhone,

2008-

App Store,

Apple iPhone

2012 . (- 4), App Store
 25 6 -

7. 550 -
 8. -

1 GB. , -

2008 .

2010 . Apple o , -

Mac App Store. 2011 . -

- Mac OS X 10.7 Lion

2012 . -

10 Mbps⁹, -
 5 GB

70 . -

, -

, -

App Store \$4¹⁰, a Mac App Store -

⁶

⁷ App Store's 25 Billionth Download Comes From China with 'Where's My Water? Free'. <http://www.macrumors.com/2012/03/05/app-stores-25-billionth-download-comes-from-china-with-wheres-my-water-free/>. 7.04.2012.

⁸

⁹ Household Download Index. <http://www.netindex.com/download/>. 7.04.2012.

¹⁰ App Store prices on the rise. <http://www.tgdaily.com/mobility-brief/57142-app-store-app-prices-on-the-rise>. 7.04.2012.

\$20 \$50¹¹.

1. 2001.
2. App Store prices on the rise. <http://www.tgdaily.com/mobility-brief/57142-app-store-app-prices-on-the-rise>. 7.04.2012.
3. App Store's 25 Billionth Download Comes From China with 'Where's My Water? Free'. <http://www.macrumors.com/2012/03/05/app-stores-25-billionth-download-comes-from-china-with-wheres-my-water-free/>. 7.04.2012.
4. Blundell, G., Personal computers in the Eighties, BYTE January 1983.
5. Computer Changes In The 1980'S. <http://www.thepeoplehistory.com/80scomputers.html>. 19.03.2012.
6. Global Software Industry Guide. DataMonitor. http://www.infoedge.com/product_type.asp?product=DO-4959. 20.03.2012.
7. Household Download Index. <http://www.netindex.com/download/>. 7.04.2012.
8. If You Can't Stand the Coding, Stay Out of the Kitchen. <http://drdobbs.com/184404040>. 19.03.2012.
9. Mac App Store by the numbers — almost 1,000 apps on Day One. <http://www.tuaw.com/2011/01/06/mac-app-store-by-the-numbers-almost-1-000-apps-on-day-one/>. 7.04.2012.
10. Software: Global Industry Guide. http://www.researchandmarkets.com/reports/41526/software_global_industry_guide. 20.03.2012.

¹¹ Mac App Store by the numbers — almost 1,000 apps on Day One. <http://www.tuaw.com/2011/01/06/mac-app-store-by-the-numbers-almost-1-000-apps-on-day-one/>. 7.04.2012.

DELPHI XE

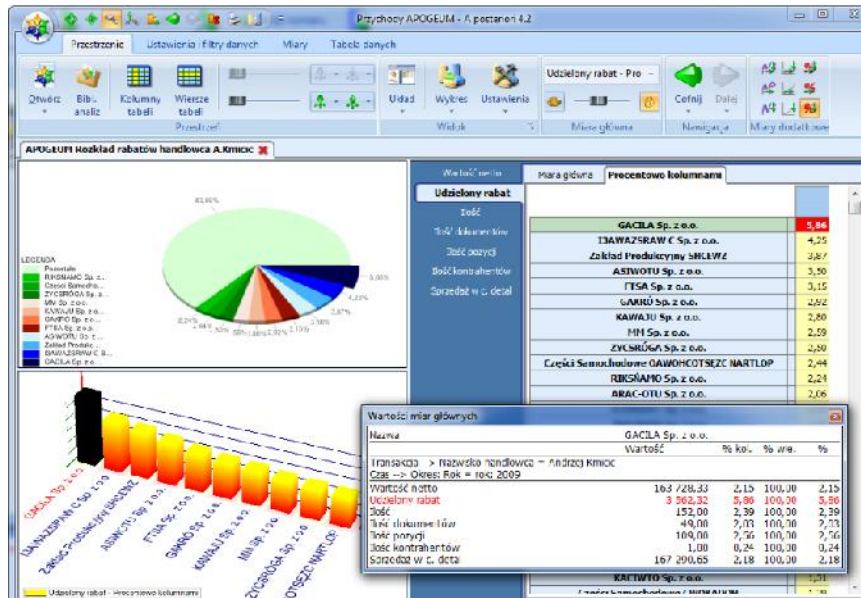
XE Delphi
-59/2011
20 (. . 2012 .)
PHP MySQL ASP.NET
Server Pages Intraweb, WebSnap, Java Server Pages (JSP), Cache
Rapid Application Development (RAD).
78

(2) : (1) -
 . -
 . -
 ” ” ” -
 ” ” ” -
 - Delphi XE. -
 Delphi -
 1993-2002 . 1 -
 7 Borland, Inprise. -
 (. . 2012 .) -
 Embarcadero Delphi XE. -
 Delphi XE -
 : (1) , -
 (2) , (3) smart , (4) -
 , (5) (6) . -
 DelphiXE Delphi 7. -
 . DelphiXE -
 . -
 , Delphi XE -
 - Software Quality Assurance. -
 , Delphi XE. -
 . 1 , 3D -
 (. 1). -
 3D . -
 - **A posteriori**² -
 sql (. 2).

¹ <http://www.grasp3d.com/> (07.03.2012).
² <http://www.aposteriori.com.pl/> (07.03.2012).



. 1.



. 2.

sql

(. 3).

³ <http://www.dpsoftware.com/xspro/index.html> (07.03.2012).



7" x 8"; 31

. 3.

	-	AlignMix ⁴	-
	-	Altium Limited ⁵	-
	-	WXTrack ⁶	-
	(. 4).		
	-	X Monitor GPRS (. 5).	
()	-	Smart Packer Pro ⁷ (. 6).	
	-	Skype.	
	-	SamReports ⁸ -	
	(. 7).		
	-	pCon.planner ⁹ -	
	(. 8).		
	-	OS800 ¹⁰	-
	(. 9).		

⁴ <http://www.alignmix.com/> (07.03.2012).

⁵ <http://www.altium.com/> (07.03.2012).

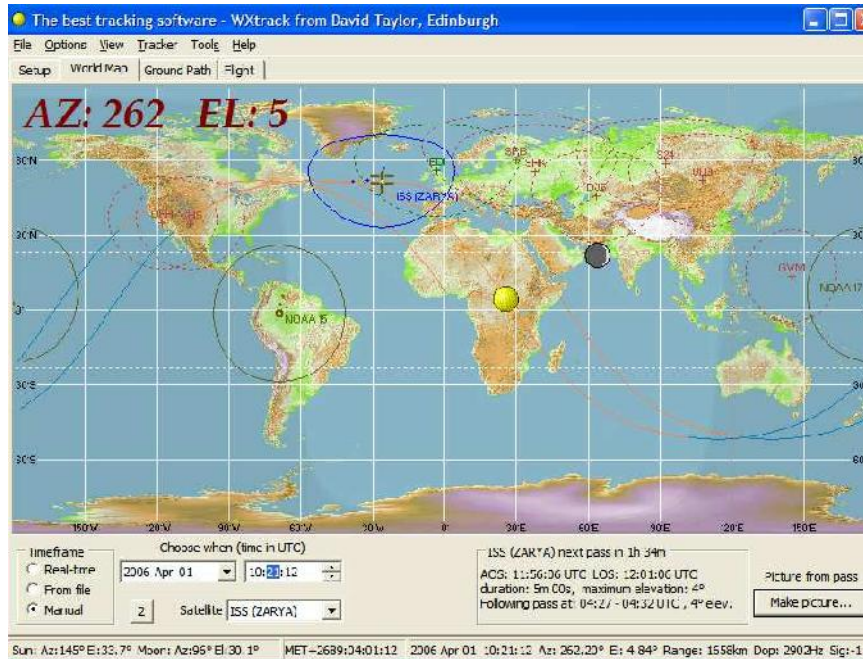
⁶ <http://www.satsignal.eu/software/wxtrack.htm> (09.04.2012).

⁷ <http://www.smartpacker.nl/smartpackerpro.html> (09.04.2012).

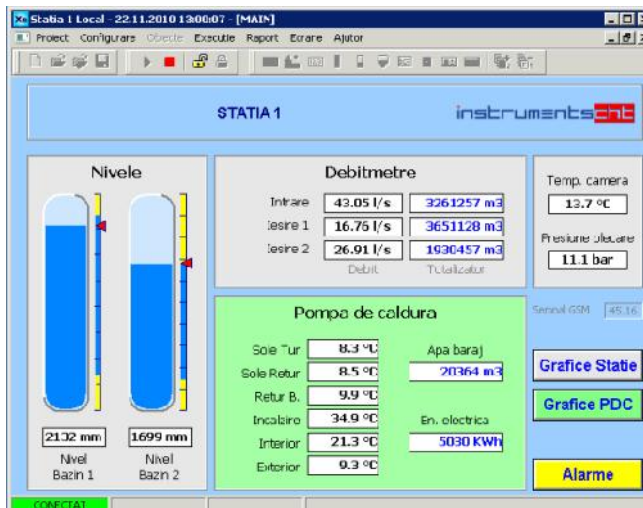
⁸ www.samreports.com (09.04.2012).

⁹ <http://pcon-planner.com/> (09.04.2012).

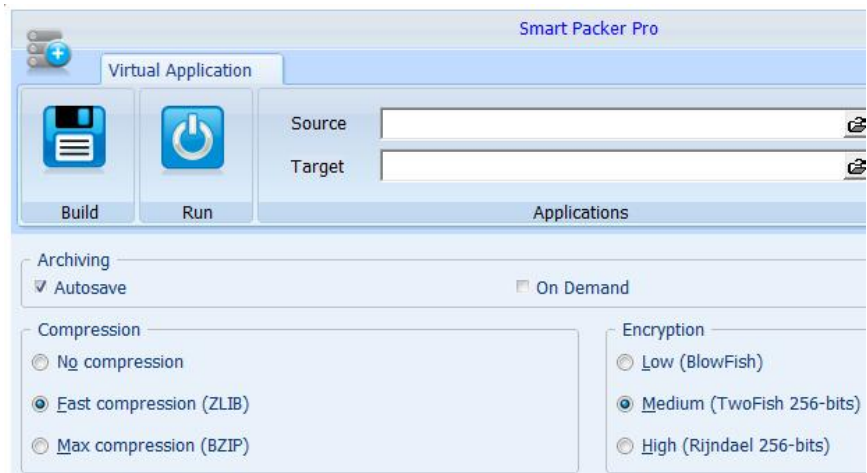
¹⁰ <http://www.hma.no/> (09.04.2012).



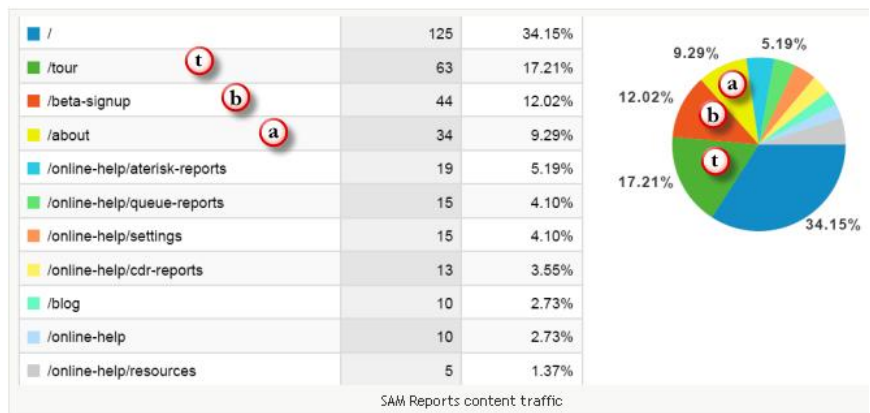
. 4.



. 5.



. 6.



. 7.

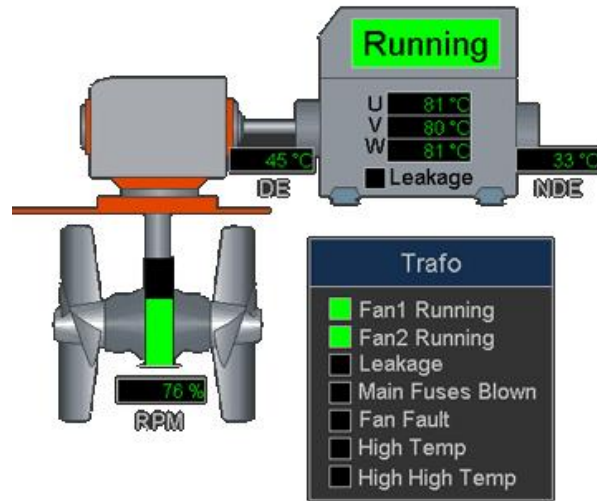
”

-

”



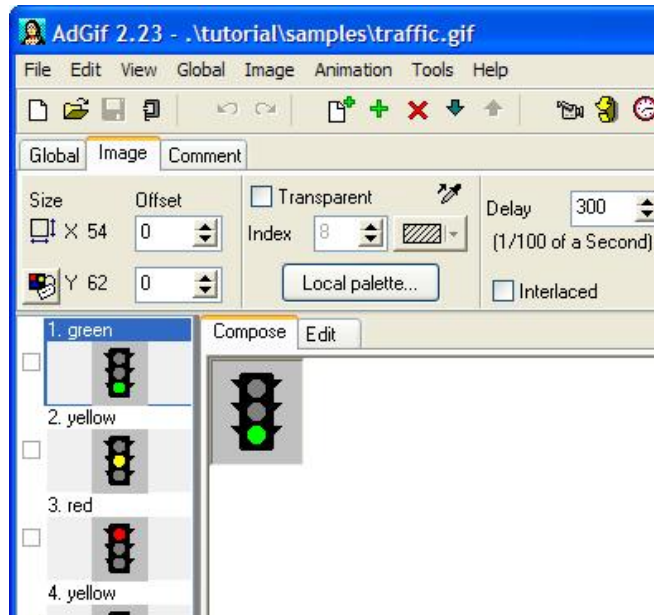
. 8. 3D



. 9.



. 10.



. 11.

Advanced GIF Animator

BASpeed¹¹ – (dashboard)
, ADSL , IP -
(.10).
– **Advanced GIF Animator**¹² – -
(GIF).
-
Delphi XE. Delphi XE
-
Embarcadero.

¹¹ <http://baspeed.bandaancha.eu/> (09.04.2012).

¹² <http://www.gif-animator.com> (09.04.2012).

COMPETITIVE CLUSTERS – THE ROLE AND INFLUENCE IN INCREASING THE NATIONAL, REGIONAL AND LOCAL COMPETITIVENESS

*Assoc. Professor Asalos Nicoleta, PhD
„Ovidius” University, Constanta, Romania*

Abstract

Competitive clusters represent a new way of thinking about national, state, and local economies, and they necessitate new roles for companies, for various levels of government, and for other institutions in enhancing competitiveness.

Clusters are important because they create tangible economic benefits. The benefits of a cluster come in three dimensions:

- Firstly, companies can operate with a higher level of efficiency;*
- Secondly, companies and research institutions can achieve higher levels of innovation;*
- Thirdly, the level of business formations tends to be higher in clusters.*

Clusters also reduce the costs of failure, as entrepreneurs can fall back on local employment opportunities in the many other companies in the same field.

All countries have cluster programmes on a national and/or regional level, but cluster policy is very different from country to country according to political conditions, specific socio-economic and historical and the areas where clusters play the most prominent role are science and education.

1. Introduction

Michael Porter suggest that clusters represent a new way of thinking about national, state, and local economies, and they necessitate new roles for companies, for various levels of government, and for other institutions in enhancing competitiveness. For companies, thinking about competition and strategy has been dominated by what goes on inside the organization. Clusters suggest that a good deal of competitive advantage lies *outside* companies and even outside their industries, residing instead in the locations at which their business units are based. This creates important new agendas for management that rarely are recognized. For example, clusters represent a new unit of competitive analysis along with the firm and industry. Cluster thinking suggests that companies have a tangible and important stake in the business environments where they are located in ways that go far beyond taxes, electricity costs, and wage rates. Trade associations can be competitive assets, not merely lobbying and social organizations.

2. The role of governments in create and sustain clusters and competitiveness

For governments, thinking about the competitiveness of nations and states has focused on the overall economy, with national-level policy as the dominant influence. The importance of clusters suggests new roles for government at the federal, state, and local levels. In the global economy, sound macroeconomic policies are necessary but not sufficient.

Government's more decisive and inevitable influences are at the microeconomic level. Among them, removing obstacles to the growth and upgrading of existing and emerging clusters takes on a priority. Clusters are a driving force in increasing exports and are magnets for attracting foreign investment. Through clusters not only individual firms can be supported but groups of firms, which represents a more promising approach in terms of the efficiency and potential impact of individual public support actions. As a result, the commercialisation of R&D results can be better ensured and SMEs can be better engaged into larger scale projects through cluster organisations.

Thus, the challenge today is not to create more clusters but rather to create better and more sustainable ones. Although this sounds logical, it is not quite so easy to achieve in practice. This represents a paradigm change for public authorities involved in cluster policies as well as for cluster practitioners, and it may have a significant impact for future cluster funding and development.

Clusters affect competition in three broadways that both reflect and amplify the parts of the diamond: (a) increasing the current (static) productivity of constituent firms or industries, (b) increasing the capacity of cluster participants for innovation and productivity growth, and (c) stimulating new business formation that supports innovation and expands the cluster. Thus, a cluster is a system of interconnected firms and institutions whose whole is more than the sum of its parts.

3. Aspects of national cluster policy in European Union

The national cluster policy lays the foundation for more concrete actions. At policy level, plans and strategies are developed in the form of policy documents, directives and legislation, rather than concrete programmes and organisations. There may be one overarching policy for clusters, a „cluster policy”, outlining specifically how cluster development should be pursued. In addition, clusters may form a framework in a range

of policy fields, for example innovation and technology, regional economic development and entrepreneurship.

There is a huge variation among the countries when it comes to how many and what kind of national ministries that are responsible for the implementation of cluster policy. In thirteen of the countries, at least two ministries are responsible. The clear majority of these thirteen are countries located in Western Europe, but it is hard to identify any regular pattern among them. A lot of different combinations are utilised. The ministries that are most used as implementers of cluster policy are the ministry of industry (16 countries) and the ministry of finance/economy (14 countries). The ministry of science and research (9 countries) and other ministries and organisations are also quite common (11 countries). There is a quite clear division between economies that can be characterised as emerging and the more mature ones in „the old EU”. A general impression is that the ministries of finance/economy play a more vital role in the emerging economies, while thematic ministries are involved to a greater extent in „the old EU”.

The importance of cluster policy at a national level varies among the countries. Cluster policy is seen as important in 9 countries (30 percent), of medium importance in 12 countries (40 percent) and of low importance in 9 countries (30 percent). There is no clear picture regarding what kinds of countries that are found among those who find cluster policy important. Among the nine countries, we find the three largest countries in Western Europe, three Nordic countries and three countries of various sizes from Eastern Europe.

Among the nine countries that count cluster policy to be of low importance, there is a wide variety of countries. However, it is possible to identify some uniting characteristics between them. The common denominator is the overall organisation of the country. Firstly, cluster policy plays a less significant role for some countries organised as federations. This is probably why Belgium and Switzerland are found in this group. Secondly, the degree of autonomy at a regional level is also vital. Some countries where the regional level plays a significant role, for example Denmark (in the field of innovation and regional development) and Italy can also be found here.

In the country reports, the European countries have each listed between 0 and 7 national agencies responsible for the cluster policy each country. Some of these agencies have implemented regular national cluster programmes, while other agencies deal with the cluster policies on a more general level; hence they have not formulated individual cluster programmes.

Part of the explanation behind the different numbers is to be found in the structure of the states included in the study. In some countries, cluster

policies are not particularly relevant on a national level, but they are more relevant on a decentralised regional level. Federal states like Belgium, Italy, Switzerland, the UK, Spain and Turkey are special cases in this matter. In these cases the national levels are defined as the federal level, which means that not many cluster agencies or cluster programmes have been identified.

4. Conclusions

- The health of the company depends on the health of the cluster. Companies might actually benefit from having more local competitors.
- Clusters represent an important forum in which newtypes of dialogue can and must take place among companies, government agencies, and institutions such as schools, universities, and public utilities.
- In the major part of the European countries, cluster policies on national or country level are implemented by agencies organised under the different ministries.

5. Acknowledgement

This paper is financially supported through the project „Post-doctoral studies in economics: continuous training programme for elite researchers – SPODE”, grant contract *POS DRU/89/1.5/S/61755*, financed by European Social Fund through the Human Resources Development Operational Sectoral Programme 2007-2013.

6. Bibliography

1. Porter, M. *The Competitive Advantage of Nations*. Free Press, New York, 1990.
2. Porter, M. *Competitive Strategy*. Simon and Schuster, 1998.
3. Porter, M. *Cluster and the New Economics of Competition*. Harvard Business Review, 1998.
www.competitiveness.com
www.ec.europa.eu/cip
www.isc.hbs.edu

—

. -

-

” . .

” —

e

,

- -

,

,

,

,

,

,

-

,

.

-

,

.

-

,

.

-

,

.

-

.

-

,

,

,

,

,

,

,

.

,

,

-

-

,

-

,

,

.

”

”

-

,

,

,

,

,

,

,

-

,

-

91

¹ Mair, J., Robinson, J. & Hockerts, K. (2006). *Social Entrepreneurship*. New York: Palgrave Macmillan; Nicholls, A. (2008). *Social Entrepreneurship: New Models of Sustainable Social Change*. Oxford: Oxford University Press; Skillern, J., Austin, J. & Leonard, H. (2007). *Entrepreneurship in the Social Sector*. Harvard Business School, Sage Publications; , . (2002).

1977

2.

3.

1985

3.

² . (1996).
. (2011).
. (2002).
16-17.

³ . (2002).
. (2011).
. (2002).
16-17.

” 8-10;
, 22-54.

, ,
 .
 , ,
 .
 ,
 ” ,
 ,
 4.
 -
 .
 -
 2009 , 40%
 946
 3.4 5. , 48-
 () ,
 ;
 ,
 2.7 ;
 1.4%
 ”
 ,
 ,
 ,
 ,
 .

⁴ : Zahra, S., Rawhouser, H., Brawe, N., Newbaum, D. & Hayton, N. (2010). Globalization of Social Entrepreneurship Opportunities. Strategic Entrepreneurship Journal. Vol. 2, 117-131.
⁵ www.worldbankglobalwealthdisparity.

“ ”
 .
 -
 , .
 . 8
 -
 -
 ,
 .
 ,
 -
 -
 -
 ”
 ,
 -
 ,
 -
 ,
 -
 ,
 -
 ,
 -
 .
 ,
 -
 ,
 -
 ,
 -
 -
 ,
 -
 -
 -
 -
 .

8

”
 , (2005).
 ; , (2004).
 ; , (1989).
 -

, , -
 - ” ” - ” ” : ” -
 ” ” ” - ” ” -
 ” ” ” ” (. . 1.1).

1.1

E		
18	;	: ;
18 20	: ;) (.) . ; ;
20	: ; ; ;	; ; ;

- 1980	<ul style="list-style-type: none"> • / ; ; • / ; ; • / ; ; • / ; ; 	<ul style="list-style-type: none"> • ; ; • ; ; • ; ; • ; ; • Interpreneuership (),
?	?	?

: Kyr, P. (2006). *Entrepreneurships Paradigm Building – towards a discipline*. 12. 2007, 1-19, 11.
http://www.uta.fi/entre/net/hankerekisteri/hanke2_paradigm.htm

. (. . 1.2).

1.2

()		

: Sykes, . & Block, Z. (1989). *Corporate Venturing Obstacles: Sources and Solutions*. *Journal of Business Venturing*, Vol. 3 (2), 67-89, 69.

⁹ . EU. (2009). A new Partnership for Cohesion – Convergence, Competitiveness, Cooperation. Third Report on Economic and Social Cohesion; http://ec.europa.eu/enterprise/csr/official_doc.htm, 12. 2010, 1-54.

... — , -
 . -
 . -
 — , , -
 , -
 . -
 ” ” -
 , , -
 . -
 . -
 ,
 ,
 -
 ’ ” ” ,
 , ” ” -
 . -
 ” ” , -
 , .

1. , ,, , . (1989).
2. , . (2011).
3. , . (2004).
4. , . (2002).
5. , . (2005).

6. . . . (2005).
7. . . . (2006).
8. . . . (1996).
9. Kyrö, P. (2006). Entrepreneurships Paradigm Building – towards a discipline.12. 2007, 1-19.
http://www.uta.fi/entrenet/hankerekisteri/hanke2_paradigm.htm
10. Mair, J., Robinson, J. & Hockerts, K. (2006). Social Entrepreneurship. New York: Palgrave Macmillan.
11. Nicholls, A. (2008). Social Entrepreneurship: New Models of Sustainable Social Change. Oxford: Oxford University Press.
12. Sykes, . & Block, Z. (1989). Corporate Venturing Obstacles: Sources and Solutions. Journal of Business Venturing, Vol. 3 (2), 67-89.
13. Skillern, J., Austin, J. & Leonard, H. (2007). Entrepreneurship in the Social Sector. Harvard Business School, Sage Publications.
14. Zahra, S., Rawhouser, H., Brawe, N., Newbaum, D. & Hayton, N. (2010). Globalization of Social Entrepreneurship Opportunities. Strategic Entrepreneurship Journal. Vol. 2, 117-131.
15. EU. (2009). A new Partnership for Cohesion – Convergence, Competitiveness, Cooperation. Third Report on Economic and Social Cohesion;http://ec.europa.eu/enterprise/csr/official_doc.htm, 12. 2010, 1-54.
16. [www.UNESCOInstituteForStatistics/2010/Correspondence on education indicators](http://www.UNESCOInstituteForStatistics/2010/Correspondence%20on%20education%20indicators).
17. www.worldbankglobalwealthdisparity.

SAVING – INVESTMENT – DEVELOPMENT

*Doc. dr Janka Krsto Dimitrova
„Goce Delcev” University, Macedonia*

Investment or investing is renunciation of consumption at present, to receive certain benefits in the future. The sacrifice who filed the present and the benefits or revenues, which are expected in future, represent one of the basic features of the investments and the investment process. This feature contributes the investing as a time gap between present and future.

With direct or indirect reinvestment of savings capital earnings (profits) are allowed, and taking into consideration the rapid flow of information, also means transfer of the capital from national to global level. Modern technology offers opportunities for increased flexibility of capital from the territorial aspect and the aspect of the type of industry. The Large transnational corporations (TZC), searching cheap raw materials, energy, labor and entrepreneurial are transferring the capital in order to maximize their profits.

Keywords: *investment, profits, savings, reinvestment, information, development.*

Introduction

Investments represents an increase of permanent capital funds. Capital funds of an economy apear in three basic forms: buildings (factory halls, administrative buildings, etc.), Equipment (machines, installed technological lines) and stocks (raw materials, products and finished products). Capital funds, in particular, are given size. When performing the act of investing, they soar.

Investments are very important economic category. Investments, raising permanent capital funds de facto increase the capacity of the overall economy. Part of capital funds through use over time are spent. Their value trough functioning in production, is gradually consumed and transferred part by part to the value of the new product. This spending of capital funds is called depreciation or amortization. That means, while investments increase permanent capital funds, their use contributes to their spending and their reduction. Hence, the conclusion is that an economy which wants to keep existing scale and existing level of capital funds, must to invest in a scope that would allow replacement of spent capital funds.

If the economy invested under the amounts of depreciated capital funds, created a process of disinvestment. It is extremely negative phenomenon that reduces capital funds under the existing level. If the volume

and value of investments in the economy are greater than the amount of depreciation, the economy will ensure not only compensation (replacement) of spent capital funds, but their increase.

Savings as a significant factor in investment

For a given level of disposable income, the decision how much to spend and how much to save is the same decision. On the other hand, what will save an amount of available funds for investment in any form. Expressed in the equation:

$$S = I$$

S (*save*)

I (investment)

This equation indicates that saving equals investment, or the economy as a whole must be saving equals investment. National saving is divided into two parts: private savings and public savings.

Private saving is the amount of income that remains after payment of household, taxes, and payment of their consumption. Households are realizing income, paying taxes, and spending for personal consumption. Saving is the part of disposable income of households that are not spent. I.e:

$$\text{saving} = \text{disposable income} - \text{consumption}$$

Public saving is the amount of tax revenue and the government remains after payment of its consumption.

Households, especially those with higher income, are not imposing all available income for consumption. One part remains unspent and that part is called savings. In this sense the savings is delayed consumption of income.

Savings and investments are equal to the economy as a whole, but not for any individual household or company. Individual savings can be greater than its investments and may invest the surplus to the bank. Individual savings can fill shortages by borrowing from a bank. Banks and other financial institutions are making possible individual differences between saving and investment and thereby enabling savings of a person to finance investment in another entity (indirect investments).

Macroeconomic and microeconomic aspects of investments

Investment of an enterprise can view two aspects: the macroeconomic and microeconomic aspects. From the microeconomic perspective of an

enterprise, investment funds are allocated to specific real good. Here we distinguish:

- **Investment return** – used to finance dilapidated, damaged and economically obsolete facilities and equipment
- **Investments in expansion** – which include investment in new equipment, new products, technologies and facilities,
- **Investments in modernization** – which include machinery, automation and computerization of production.

From the macroeconomic perspective the importance of investment in the business sector is quite large and is reflected in the following activities:

- Increase the economic independence
- Increase the employment,
- Rational utilization of productive resources,
- Higher total income
- Ensuring continuity in production.

Factors which determine investment

There are 3 factors that determine investment: savings, interest rate, and expectations in the economy.

- Saving is a very important economic category, because of savings to finance investment, and investment play a huge role in increasing productivity and dynamics of economic growth.
- The interest rate is the main determinant of investment, because it reduces the opportunity cost of money capital used to purchase the investment goods. When making investment decisions always compares the rate of return (returns on investment) with the interest rate. If the rate of return, which *de facto* reflects the profitability of investment is higher than the interest rate, the investment is worthwhile and *vice versa*.
- Expectations of the economy play an important role. Business people, managers, and entrepreneurs, are always looking to the future. If you expect „good times” lively economic activity and high profits in the future, they invest more. Conversely if the expectations are pessimistic, ie if business people predict recession.

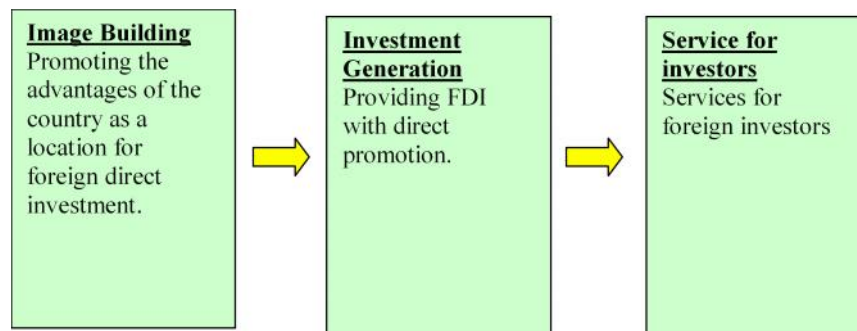
Foreign direct investment

Foreign direct investments are venture capital companies, from foreign countries in the capacity of enterprises of the host country and they acquired ownership control.

Foreign investors invest their money in a project that they think will bring a high profit. The risk they take in the investment is entirely theirs, and the country in which they invest has no financial obligation toward them.

Today's era of globalization, generally accepted view is that the best solution to compensate for insufficient domestic savings is attracting FDI. FDI also plays a key role in the transfer of knowledge and technology, create jobs, increase productivity and competitiveness with the ultimate effect, higher economic growth and poverty reduction.

The concept of promoting foreign direct investment should be consisted of the following three activities:



Companies in developing countries lack the knowledge, investing in development, marketing, modern management, new technologies, quality market. These qualities companies can obtain the entry of FDI. The competition is huge. All countries, rich and poor, large and small investors like them because they bring economic growth, employment, rising living standards, and greater citizen satisfaction rating of politicians. In this ferocious competition, each country tries to offer something special, something different, something that no others can. Investors and countries that are trying to win their interest have different goals. The first ones are attempting to achieve optimization of profit and risk, while the others to achieve possible higher net profit as a difference between the benefits that FDI brings and concessions given to the developer.

The sole purpose of any investment is profit. Safest way for the investor is to invest their money in their own country where the best known laws, economic trends, market and mentality. When investing abroad, investors are faced with growing economic and political risk varies from country to country. So the only reason that can cause investors to invest their money

in another country is higher profits. In this case, profit is put in combination with risk. Each investor makes optimization of these two factors and is willing to accept certain combinations of the amount of profit, rate and degree of risk of investment. Normally, higher risk requires higher profit rate, and *vice versa* at lower risk investors would accept a lower profit rate.

When assessing the attractiveness of a country for investing, investors are guided by a number of economic and political factors that affect investment. These factors that motivate investors are usually called benefits that are offered by the country. They can be benefits in a broader sense and benefits in the narrow sense. Benefits in a broader sense, ie the general economic situation, economic, political and legal stability, size of the country, geographical location and availability of certain factors of production (eg human capital and natural resources) are the most important factors for foreign investors. In an effort to increase the profit rate of foreign investors, the country offers a range of benefits that aim to reduce risks and costs of FDI – benefits in the narrow sense.

Conclusion

Saving is a basic and cheapest source of funds that can finance the planned investment activities. Saving is an important prerequisite and basis for economic development. Greater savings leads to greater investment, and consequently, to higher rates of economic growth. Many people believe that they for saving they need a big part of their income. But in fact it is not. To save a little deposit is important and it is possible. It is very significant savings to be regular, ie to build a habit of patiently saving as a way of life, such as Culture and of course, responsibility for their own future. Savings gives us a greater sense of security because it is easier to face the future unexpected expenses or buying needs.

Investments are very important segment for every national economy because it allows to open new jobs, to increase productivity, to activate natural resources, to perform the modernization of existing facilities etc. Investments represent a key factor for the development of a country, especially in transition.

Attracting foreign investment would bring more jobs which would reduce poverty and achieve rapid economic progress. To attract foreign investment, the state should offer you better terms, and well educated staff. But to attract foreign investment a major role has it's stable legal and judicial authority and order.

References

1. Kotler, ., H. Kartadzhaja, S. David Young. Attracting Investors. Publishing Center TRI, 2009.
2. Nestorovski, . The Economics of Investment, 2010.
3. Petkovski, . Financial Markets and Institutions. Faculty of Economics-Skopje, 2009.
4. S. Spasov, S., S. Arsov. Financial Management. Faculty of Economics, Skopje, 2004.
5. Myshkin, F., The Economics of Money, Banking and Financial Markets. University „Columbia”, Publishing House Magor.
6. Stanley, B. Block, Jeffrey A. Hart, Fundamentals of Financial Management, McGraw.
7. S.K. Velkova,S. K., Z. Zlatkovski (2010). Business investment and Hill, 2008, New York.
8. Center for Economic Analysis (CEA), debt financing or the issuance of securities, 2007 Skopje.

Internet sources

www.en.wikipedia.org/wiki/Financial_analysis
www.moody.com
www.standardandpoors.com
<http://daily.mk/cluster/191a136118b7827aed8bb669158ff056/prognozite-za-investicii-potfilija>

NETIA SA.

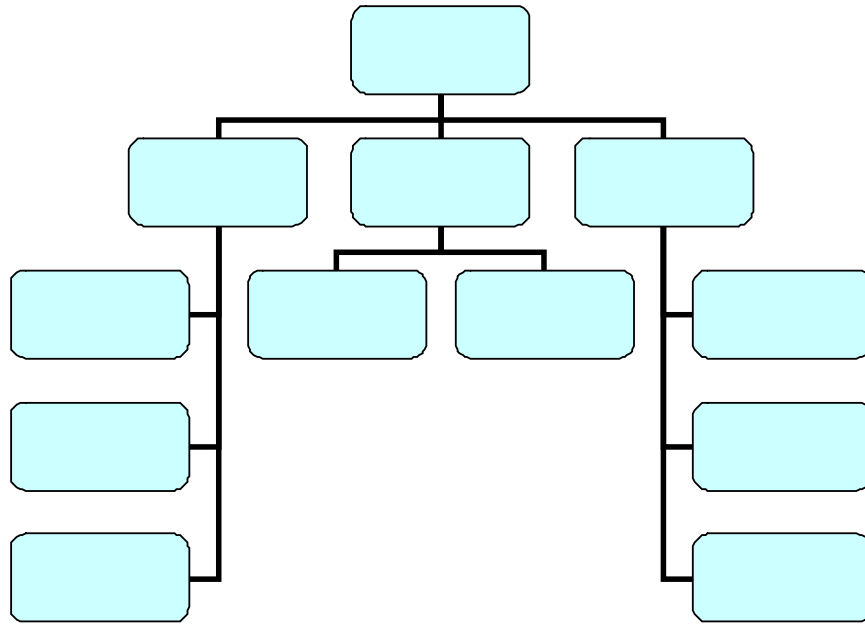
1 3-

6-

5-

4-

[.http://eksior.com/?page_id=35](http://eksior.com/?page_id=35)



1.

² Sabali, Jaime. A Practical Approach for Qualifying Country Risk, Georgetown University, 2008, p. 50.

$$E(R)_C = R_f + \beta_{B,M} \cdot [E(R_M) - R_f] + CR,$$

$E(R)_c$ – ()
 R_f – ;
 $\beta_{B,M}$ – (-)
 $E(R_M)$ – (S&P500);
 CR –

– Index of Economic
Freedom⁴ (10
 0-100) **Euromoney's Country Risk Index**⁵ (9
 , 0-100).
 () :
 = /

³ Damodaran, Aswath. Measuring Company Exposure to Country Risk: Theory and Practice, 2003.
⁴ <http://www.heritage.org/Index/Visualize?countries=UnitedStates|Bulgaria&src=Ranking>
⁵ <http://www.euromoney.com/poll/10683/PollsAndAwards/Country-Risk.html>
⁶ McKinsey, Koller, Goedhart, Wessels. Valuation: Measuring and Managing the Value of Companies / Wiley, USA, 2010.

$$PV = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \frac{CF_n}{(1+r)^n}$$

PV – ;
CF – ;
r – .

NETIA SA.

(P/E) / (P/CF), / -
 BV). (P/ - NETIA
 SA ,

Euromoney country risk survey.

- NETIA SA.

I

	:	Netia SA		
		2008	2009	2010
1	/ (P/CF)	1,66	2,3	2,65
2	/ (P/E)	8,93	8,54	22,2
3	/ (P/BV)	0,9	0,8	0,9
4				
5		68,32	67,8	70,47
6	BG	58,16	59,93	59,93
7		1,17	1,13	1,18
8	/ (P/CF) -	1,41	2,03	2,25
9	/ (P/E) - 1/ 6 -	7,60	7,55	18,88
10	/ (P/BV) - .2/ .6 -	0,77	0,71	0,77

NETIA SA

	2008	2009	2010	.
	0,7	0,29	0,52	
P/CF –	0,99	0,59	1,17	0,92
P/E –	5,32	2,19	9,82	5,78
P/BV –	0,54	0,21	0,40	0,38

-

-

,

-

-

-

-

31.12.2010 .(.)		.	(.) = .2* .3		. .(.)= .4* .5
1	2	3	4	5	6
	375577	0,92	345531	0,4	138212
	114144	5,78	659752	0,4	263901
	506808	0,38	192587	0,2	38517
					440631

		,		-
31.	2010 .	,		.
	1 270 565 .	„	-	-
,			,	-
				-
				-
				-
				-

• • -

-

,

,

I.

;

;

1

// , .4, 2011, .21.

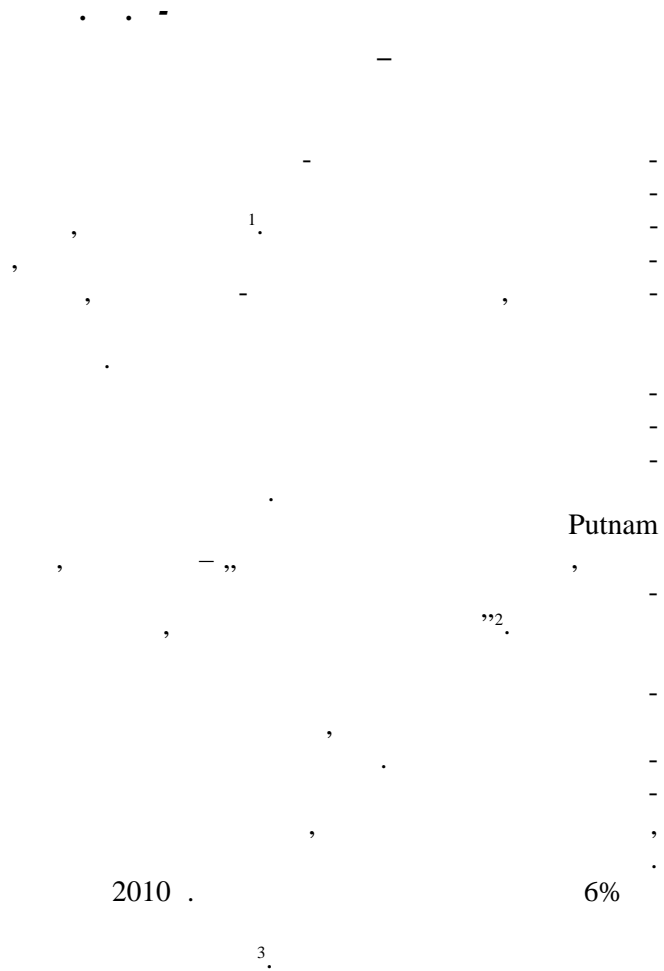
II.

() 15 2011 .²

Fragment of a document containing faint, mostly illegible text and symbols such as commas, dots, and dashes.

² <http://www.eesc.europa.eu>

1. „...“ : „...“, 2008.
2. „...“ : „...“, 2004.
3. „...“ : „...“, 1995.
4. „...“ : „...“, 2010.
5. „...“ : „...“, 2002.
6. <http://econ.bg>
7. <http://www.eesc.europa.eu>



¹ Moseley, Malcolm J. (2003). Rural development : principles and practice. London: SAGE. p. 5.

² Putnam RD (2000) Bowling Alone: the Collapse and Renewal of American Community. New York: Simon & Schuster.

³ Galdeano-Gomez, E. Jos A. Aznar-Sanchez, J. C. Perez-Mesa (2011) The Complexity of Theories on Rural Development in Europe: An Analysis of the Paradigmatic Case of Almería (South-east Spain) Sociologia Ruralis, Vol 51, Number 1, January 2011.

, (-
)
 4 , -
 , -
 , -
 , -
 5 , -
 . *I* -
 .
I

: Galdeano-G mez, E. Jos A. Aznar-S nchez , J. C. P rez-Mesa (2011).

Flynn Lowe⁶ (1994) ,

⁴ Galdeano-G mez, E. Jos A. Aznar-S nchez , J. C. P rez-Mesa (2011) Op. cit.

⁵ Ward, N., J. Atterton, K. Tae-Yeon, P. Lowe, J. Phillipson and N. Thompson (2005) Universities, the knowledge economy and the „neo-endogenous rural development“. Discussion Paper, No. 1, Centre of Rural Economy.

⁶ Flynn, A. and P. Lowe (1994) Local politics and rural restructuring: the case of the contested countryside. Pp. 247–259 in D. Symes and A.J. Jansen eds, Agricultural restructuring and rural change in Europe.

7

8

9

10

11

12

⁷ Seiichi Sakurai (2006) Role of Social Capital in Rural Diversification: A Case of Mountainous Villages in Japan. Asian Productivity Organization, 2006

⁸ Ostrom, E. (1994) „Social Capital, Self-Organization and Development.” Workshop in Political Theory and Policy Analysis, Indiana University.

⁹ Williamson, O. E. (1985) The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting. New York: Free Press

¹⁰ (. Common-pool resources).

¹¹ Van Bastelaer, T. (1998) „Social Capital, Poverty and Credit.” Social Capital Initiative Working Paper No. 8. Washington D.C.: The World Bank.

¹² Ostrom, E. (1994) Op. cit.

()

13

Barker

14

15

16

¹³ Townsend, Robert (1994) „Risk and Insurance in Village India” *Econometrica* 62(3): 539-591.

¹⁴ Barker, J. W. (1981). *Agricultural Marketing*. Oxford University Press: New York.

¹⁵ Krishna A. (1997). „Participatory Watershed Development and Soil Conservation”, in *Reasons for Hope. Instructive Experiences in Rural Development*, ed. Krishna, A; Esman, M. J, and Norman Uphoff.

¹⁶ Seiichi Sakurai (2006) *Op. Cit.*

Fukuyama (1999)¹⁸

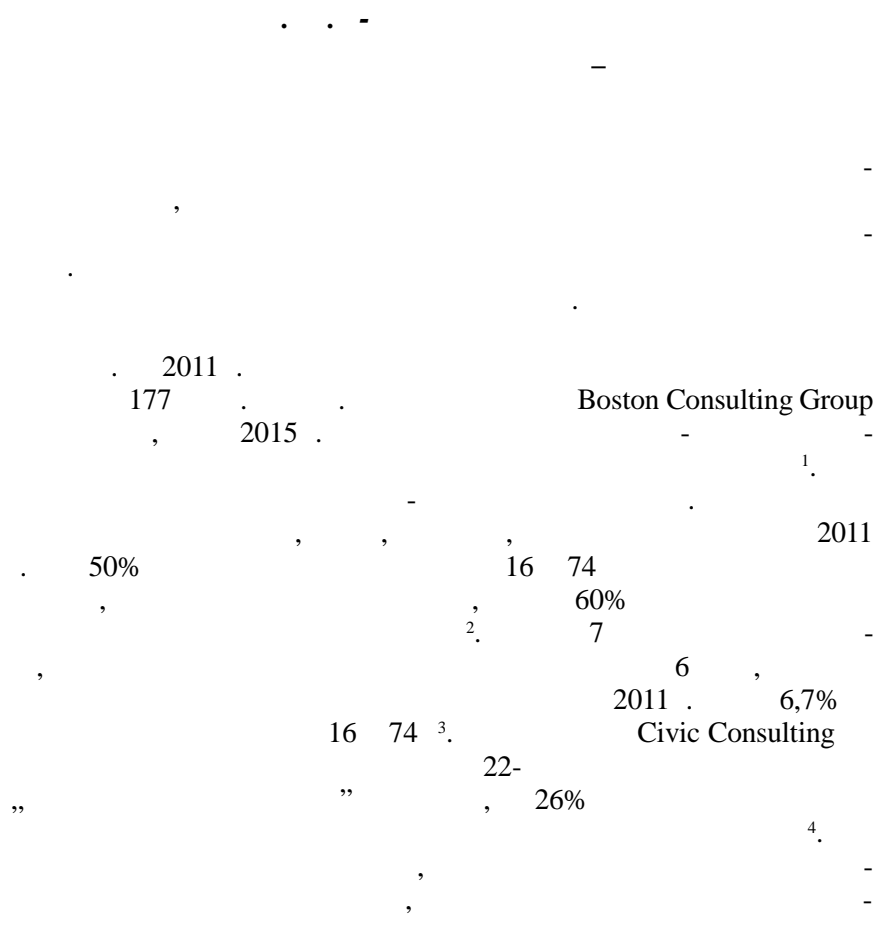
2

¹⁷ , 2006. Op. Cit.

¹⁸ <http://www.imf.org/external/pubs/ft/seminar/1999/reforms/fukuyama.htm> (, 14.05.2012).

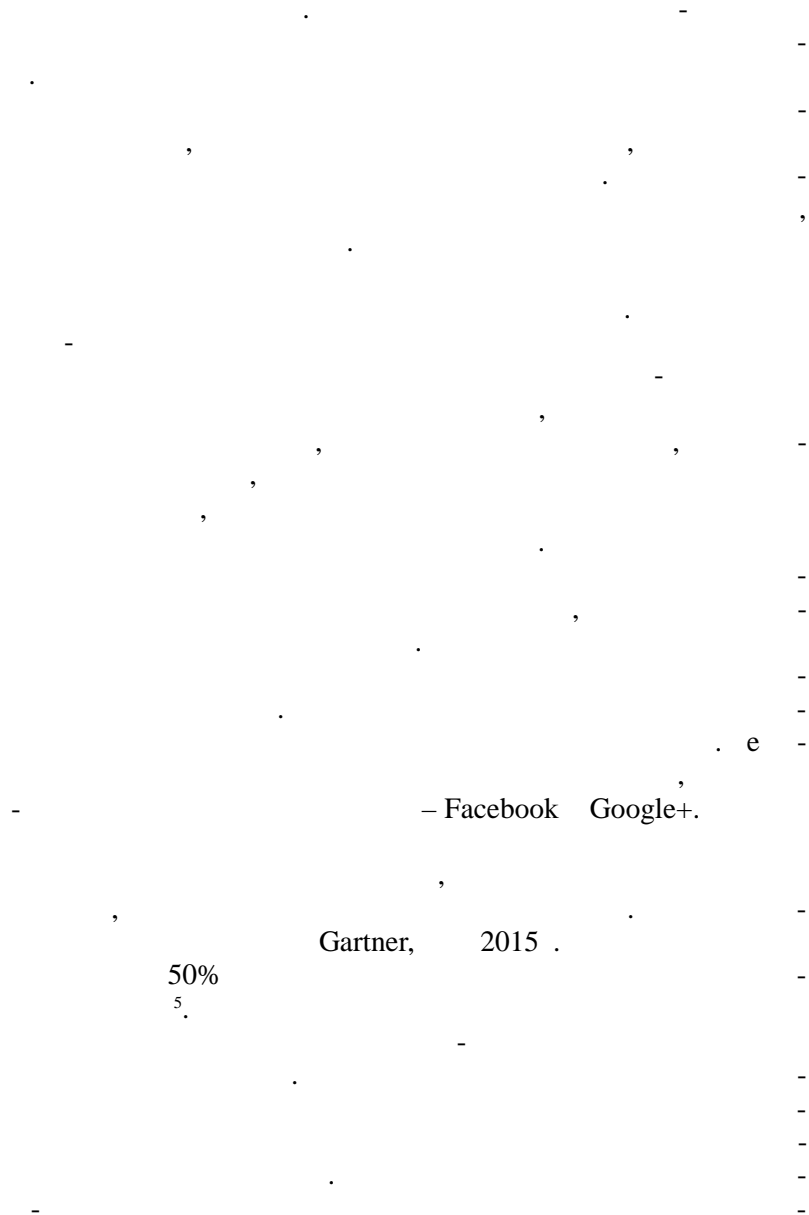
James Coleman (1998), Alejandro Portes (1998), and Van Staveren (2003) discuss the role of social capital in community development. Coleman (1998) defines social capital as the trust and reciprocity that binds individuals together, enabling them to act in concert for the common good. Portes (1998) expands on this concept, arguing that social capital is a form of capital that can be used to create economic and social opportunities. Van Staveren (2003) examines the role of social capital in the development of civil society and argues that it is essential for the success of community-based initiatives. The authors argue that social capital is a key factor in the success of community development projects and that it can be used to create a more just and equitable society.

¹⁹ <http://links.jstor.org/sici?sici=0360-0572%281998%2924%3C1%3ASCIOAA%3E2.0.CO%3B2-D> (, 14.05.2012).
²⁰ <http://www.jstor.org/discover/10.2307/4227905?uid=3737608&uid=2129&uid=2134&uid=2&uid=70&uid=4&sid=56170458983> (, 14.05.2012)



¹ Walters, J. et al. The World's Next E-Commerce Superpower, Boston Consulting Group Report, <http://www.techweb.com.cn/special/download/E-commerce.pdf>, (23.03.2012).
² Eurostat, Internet purchases by individuals, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_ec_ibuy&lang=en, (23.03.2012).
³ , - , <http://www.nsi.bg/otrasal.php?otr=17>, (25.03.2012).
⁴ Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods, Civic Consulting, http://ec.europa.eu/consumers/consumer_research/market_studies/docs/study_ecommerce_goods_en.pdf, (4.04.2012).

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.



⁵ Pettey, C. Gartner Says Companies Will Generate 50 Percent of Web Sales Via Their Social Presence and Mobile Applications by 2015, <http://www.gartner.com/it/page.jsp?id=1826814>, (4.04.2012).

Amazon Ebay

ting).

IT

(cloud compu-
(SaaS),
(IaaS)

(PaaS),

Cisco

66% ”⁶. : Amazon
Amazon Web Services, Google Google AppEngine, Microsoft Microsoft
Azure, Apple iCloud, Salesforce, Sun Microsystems, IBM, Oracle
VMWare⁷.

1. , . , 2009.
2. , – , <http://www.nsi.bg/otrasal.php?otr=17>, (25.03.2012).
3. Armbrust, M. et. al, Above the Clouds: A Berkeley View of Cloud Computing. University of California, Berkeley, Technical Report No. UCB/EECS-2009-28, 2009.
4. Eisingerich A. and T. Kretschmer, In E-Commerce, More Is More, Harvard Business Review, March/2008, p. 20–21.

⁶ Cisco Global Cloud Index: Forecast and Methodology, 2010–2015, White Paper, http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns1175/Cloud_Index_White_Paper.pdf, (8.04.2012).

⁷ Richard Martin, R and J. Nicholas, Hoover Guide To Cloud Computing. http://www.informationweek.com/news/services/hosted_apps/208700713, (8.04.2012).

5. Martin, R and J. Nicholas, Hoover Guide To Cloud Computing, http://www.informationweek.com/news/services/hosted_apps/208700713, (8.04.2012).
6. Pettey, C. Gartner Says Companies Will Generate 50 Percent of Web Sales Via Their Social Presence and Mobile Applications by 2015, <http://www.gartner.com/it/page.jsp?id=1826814>, (4.04.2012).
7. Walters, J. et al. The World's Next E-Commerce Superpower, Boston Consulting Group Report, <http://www.techweb.com.cn/special/download/E-commerce.pdf>, (23.03.2012).
8. Cisco Global Cloud Index: Forecast and Methodology, 2010–2015, White Paper, http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns1175/Cloud_Index_White_Paper.pdf, (8.04.2012).
9. Consumer market study on the functioning of e-commerce and Internet marketing and selling techniques in the retail of goods, Civic Consulting, http://ec.europa.eu/consumers/consumer_research/market_studies/docs/study_ecommerce_goods_en.pdf, (4.04.2012).
10. Eurostat, Internet purchases by individuals, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_ec_ibuy&lang=en, (23.03.2012).

, -
. -
, , -
-
, -
-
, -
, -
, -
. -
, -
, -
. -
-
, -
, -
, -
. -
, -
, -
. -
. -
, -
, . -
, -

). SADT-

1.

•
•
•
•
•
•
•
•
•
•

¹ , . . .
2002. . 160.

**IMPACT OF AGRICULTURAL EXTENSION
AND CONSULTATION ON FARMERS' KNOWLEDGE
AND AWARENESS OF WATER RESOURCES
MANAGEMENT IN THE REPUBLIC OF ARMENIA**

*Harutyun Gevorgyan¹, Hrachik Javadyan²,
Gurgen Yeghiazaryan³*

Key words: Consultation, water resources management, efficiency of consultation, level of education, diffusion of knowledge.

Introduction

Some of the main factors for effective use of water resources in the Republic of Armenia are the use of new technologies and techniques, as well as the organization of periodic extension education trainings for water user associations, through which the fresh water sources of the Republic of Armenia, which have a great value, could be saved [6].

If in previous years the crop water requirement used to be calculated by measuring the amount of precipitation, nowadays it is calculated with regard to the quantity of crop evapotranspiration, which is one of the main factors of water resources management and of getting high yield production from agricultural crops. Nowadays the process of climate change on earth has given us a reason to assume that agricultural crops demand more water than before. Actually it is true and has been proven by many scientists. The calculations and investigations done by us show [12] that at present, in order to have the same yield as before, agricultural crops use approximately 25% more water than before. But if we take into consideration the fact that in the case of implementation of new technologies we can manage giving water not to the soil (meaning that the main amount of water is lost through the soil during evaporation), but to the plants, it becomes obvious that the usage of new technologies in the field of water resources management is very important for the economical usage of water. According to the research,

¹ University of Ruse, Bulgaria, PhD researcher. //E-mail: h_gevorkyan@yahoo.com

² Armenian State Agrarian University, Armenia, Dean of the faculty Agribusiness and management

³ Armenian State Agrarian University, Armenia, Head of Agro-extension department

water losses from traditional technologies (e.g. surface irrigation) can reach up to 40-60%, whereas during drip irrigation the maximum amount of water lost is no more than 2-4% [11].

Currently, through financing received from various local and international organizations and projects, numerous activities have been performed in the Republic of Armenia aimed at improving the efficiency of irrigation systems and introducing innovative technologies in the field. International programs and organizations such as Millennium Challenges, World Bank, Food and Agriculture Organization, etc., focus their attention on the investment and introduction of new technologies in water resources management. Parallel to this, trainings and agro-extension activities have been organized for farmers in order to help them implement those technologies and realize their efficiency. Native, as well as international literature [3, 4, 10, 13] have provided convincing evidence that extension education and workshops are the most prevalent method used to train farmers in Water resources management and other agriculture-oriented topics. As J. Mark Erbaugh, 2001, mentioned, the role of extension education is the transfer of new technologies, with their dissemination and testing done directly with the farmers.

The purpose of the current research is to evaluate the efficiency of agro-extension workshops which lead to changing farmers' knowledge and awareness of water resources management; to calculate the impact of the extension education on the level of farmers' knowledge in small farms.

Material and Methods

This research is based on the use of the hierarchical target/outcome structure, which is called TOP (targeting outcomes of programs), a model devised by Bennet and Rokckwell (1995), according to which the evaluation of realized consultative programs makes use of seven different levels. Our evaluation is conducted at the third stage, or KASA. The TOP model assumes that changes in knowledge, attitudes, skills and aspirations (KASA) lead to changes in the experience, and that, in turn, creates the desired change. Increased knowledge and awareness are generally considered prerequisites for the adoption of new practices and technologies, including water resources management (Rogers, 1995, Erbaugh J., Mark Erbaugh M., 2006).

The research done by us was implemented in the 11 Water User's associations of the Armavir region in the Republic of Armenia: Vagharshapat, Musaler, Aknalich, Khoy, Sevjur-Akhtamar, Merdzapnya, Armavir, Araqs, Shenik, Qarakert, and Thalin.



Location of the study area (Armavir region, Republic of Armenia)

During our research 90 Water users were selected, all of whom made use of the services of the above mentioned Water User Associations (WUA). The first group included 30 farmers from Khoy, Sevjur-Akhthamar, Musaler, Vagharshapat and Aknalich WUAs, and the second group was formed from 30 farmers, who were served by Armavir, Merdzapnya and Araks WUAs. A control group of 30 farmers, served by Thalín, Shenik and Qarakert WUAs was separated, too.

The division of the farmers into groups was based on the following principle.

The first group included those water users who had participated in extension education programs about water resources management and use of innovative technologies during the 2007-2009 period.

The second group comprised of those water users, who had not had the opportunity to attend a workshop on water resources management, but had close contacts with group one.

The third, control group was created by selecting those water users, who had not had the opportunity to attend a workshop on Water resources management and had not had contacts with those who had attended the workshop (First group) or with farmers from the second group. Farmers from this group were selected randomly. The purpose of selecting this group was to compare their knowledge about water resources management with that of the second group so as to understand whether the first group's knowledge of water resources had spread to the second group.

For the purpose of obtaining results from our research and attributing outcomes we have evaluated and calculated the degree of comparability of the above mentioned groups by creating a correlation matrix and by using a Student T test of mean differences (which must be more than 0.5).

During this research we tried to select and evaluate the groups based on the principle that all selected farmers must meet the same socio-economic criteria, which included sex, age, years of education, farmer income, and

irrigation lands.

Sex, as a qualitative variable was coded as (1) for women and (0) for men. Age, as well as years of education, are continuous variables. The variable of age was arranged in 5 groups (from 16 to 30-1, from 30 to 40-2, from 40 to 50-3, from 50 to 60-4 and from 60 and more-5). ‘Years of education’ was measured by the number of years of formal education completed. ‘Farmers’ income’ was measured by asking farmers to approximate their monthly farm income in Armenian drams (AMD), by using six categories ranging from less than 50000 AMD-0, from 50000 to 100000 AMD-1, from 100000 to 200000 AMD-2, from 200000 to 300000 AMD-3, from 300000 to 400000 AMD-4, from 400000 to 500000 AMD-5 and finally for more than 500000 AMD-6. ‘Irrigation lands’ was organized into five categories, those with less than one hectare and those with more than seven hectares (see table 1).

Table 1

Socio-economic parameters of observed groups

Variables	Code	Meaning	Number of farmers in the group		
			I	II	Control
Age	0	16-30	6	8	7
	1	30-40	5	4	2
	2	40-50	8	4	8
	3	50-60	5	10	6
	4	60>	6	4	7
Sex	1	Female	8	4	5
	0	Male	22	26	25
Years of education	0	8	14	19	11
	1	10	12	8	15
	2	15	4	3	4
Farmer income, AMD	0	>50000	1	4	1
	1	50000-100000	2	2	2
	2	100000-200000	5	6	4
	3	200000-300000	5	6	5
	4	300000-400000	8	6	8
	5	400000-500000	4	2	6
Irrigation lands, ha	0	>500000	5	4	4
	1	1	4	4	6
	2	1-3	8	11	13
	3	3-5	8	5	2
	4	5-7	5	6	5
	7>	5	4	4	

was created, which consisted of 35 questions. The reliability of the questionnaire was analyzed in detail with some specialists from UTAH state university, USA. The questionnaire contained open, as well as closed-ended questions. In order to evaluate the farmers' knowledge with regard to water resources management, 25 questions or 71% were created using open-question principle, aimed at obtaining more and detailed information. Furthermore, in order to evaluate the logic succession of the content of the questionnaires and its reliability, the Alfa coefficient of Cronbach was calculated [14], and it turned out to be 0,78, which indicated moderate measure of internal consistency. The questionnaire contained questions mainly about water resources and their management; so by using them we had the possibility to evaluate farmer's knowledge and awareness.

All data was collected through personal struted interviews with water users (face-to-face interview).

In this research descriptive and inferential statistics have been used to analyze the collected data. Frequent values have been calculated using descriptive statistics (mean, standard deviation and so on) and inferential statistics has been used to calculate stepwise regression procedures, correlation coefficients and analysis of variance (ANOVA) has been performed. All calculations have been done using the statistical software STATISTICA. The hypothesis in the research was that there would be significant differences in the levels of knowledge about water resources management between those three groups (1. participants, 2. non participants and 3. control).

Results and Discussions

1. Group comparability.

The comparison of the three groups' socio-economic variables provided us with specific information that in all three groups, farmers operated under the same conditions and there were no significant differences between the groups. The average age of the farmers was 42-43 in the first and second groups and 46 years in the third group (mean for all groups was 44 years). In all three groups men were predominant (the percentage of women was 15,3%, mean of variables striving for 0, because we coded men with 0 code). The explanation for that was that it is substantially men farmers who are occupied with irrigation activities and landing. Only in the first group the number of women was higher (0,267 or 26,7%), due to the fact that some employees in the Water User Associations were women and they had participated in our training workshops.

In all three groups participants generally had 10 years of education (T-

coefficient in this variable was the highest. The explanation for that was that the mean of this variable has a wide frequency). The variable of farm income in the first group fluctuated within the bounds of 300000 (3,63). Nearly the same picture was found in the third group (3,53). This parameter was lowest for the second group (3.00), but it hasn't had significant impact on the experiment. The same picture was obtained for 'irrigation lands'. The farmers from the second group had minimal amount of irrigation lands (approximately 2 ha each, the average was 1,6). But the difference of this variable hasn't had significant influence on the result of the experiments either.

Table 2

Analyses of Socio-economic parameters of observed groups ($p>0.001$)

Variable		Groups			Average
		I	II	Control	
Age	Mean	43,367	42,300	46,133	44
	Std.Dev	14,917	15,218	17,023	
	T-value	15,923	15,224	14,844	
Sex	Mean	0,267	0,133	0,167	15,3% M 84,7% F
	Std.Dev	0,450	0,346	0,379	
	T-value	3,247	2,112	2,408	
Years of education	Mean	9,733	9,233	9,933	10 years
	Std.Dev	2,303	2,144	2,227	
	T-value	23,145	23,583	24,427	
Farm income, AMD	Mean	3,633	3,000	3,533	300000 AMD
	Std.Dev	1,650	1,857	1,717	
	T-value	12,060	8,849	11,273	
Irrigation lands, ha	Mean	1,967	1,833	1,600	1,6 ha
	Std.Dev	1,299	1,289	1,354	
	T-value	8,290	7,792	6,470	

2. Comparison of farmers' knowledge

Taking into consideration the fact that water resources management is a multidimensional concept, we created a summated ratings scale with a score range of 0-20 to measure farmer's knowledge of water resources management. The scale gave us the possibility to evaluate the amount of knowledge for all 90 farmers consisting of the following four attributes or levels:

- Water resources management definition – D (0-5) low
- Concept of some irrigation technologies – C (5-10) medium
- Concept about Crop Evapotranspiration- B (10-15) high

- Application of water resources management technologies- A (15-20) very high

In order to analyze the results of the evaluation of the farmers' knowledge according to the above mentioned scale and in order to find a significant correlation between the farmers knowledge' in different groups, a correlation matrix was created and a correlation coefficient of Pierson was calculated.

Table 3

The correlation matrix with regard to the knowledge of Water resources management

	Correlation matrix			
	1 A	2 B	3 C	4 D
Water resources management definition A	1,000	0,252	0,137	0,158
Concept of some irrigation technologies B	0,252	1,000	0,858	0,588
Concept about Crop Evapotranspiration C	0,137	0,858	1,000	0,486
Application of water resources management technologies D	0,158	0,588	0,486	1,000
Means	4,000	1,578	2,780	1,508
Std.Dev.	1,587	3,345	5,082	5,025
No.Cases	59,000			
Matrix	1,000			

* *Red numbers are significantly correlated e" 0.05*

As we can see from the Pierson coefficients, knowledge becomes significant only from the third level. This accentuates the fact that getting only first level knowledge (Water resources management definition) does not give us the grounds to think that the teaching process was effective. The correlation matrix shows that the correlation between extension education and the residual knowledge of farmers is significant only when farmers can transfer to the level above.

The results of testing the farmers' knowledge about water resources management by a 20 score system shows that the mean of knowledge evaluation result of first (workshop participants) second (non participants) and third groups (control) is 10,24; 5,97 and 5,50 respectively (Table 4). It means that the knowledge of farmers who participated in the workshop is significantly higher (10,24) than that of others, and accordingly, the level of knowledge of farmers who had not participated in the workshops but had relations with the educated farmers were higher (5,97) than those who had neither participated in the workshops nor had contacts with the farmers included in the experiment (5,50). In addition, during the examining of the results the higher score for all groups was in level D (Water resources

management definition). But, as we can see, the level of farmers' knowledge who had participated in the workshops two times was higher than the level of those who hadn't participated in the workshops at all. This is a direct signal about the importance of education.

The calculations were done based on the principle that the threshold level of knowledge was the level when the mean results of the testing were higher than point 5. According to that principle, of all the participants, only 29 or 32,1% could pass the threshold level. This indicator for the participants, non participants and control groups was 56,5% (17 farmers); 26,6% (8 farmers) and 13,3% (4 farmers) respectively (Table 4). The results obtained mean that during the implementation of workshops for the same farmers, only 1/3 of all of them could learn and sufficiently absorb the information passed to them. The farmers from the first group, who had already participated in the workshops, needed to listen to two more seminars in order to perceive the information delivered to them (Table 4).

Due to variations in the evaluation of knowledge, for the purpose of estimating the farmers' groups, the analysis of Variance (ANOVA) test has been done (table 5, 6, Graph 1), as well as the observation of groups' impact on each other, and also groups' impact on levels of knowledge have been done through LSD test (Table 7,8).

As the received results show, significant correlation is revealed both between the groups and the level of water resources management (table 7) ($p < 0,05 = 0,000026$), as well as in the groups' impact on each other (Table 8), ($p < 0,05 = 0,002986$).

The groups' impact on each other (Table 7) is especially high between the first and second groups, because due to the exchange of information, members from the second group obtained some knowledge about water resources management from the farmers' of the first group.

Thus, as we can see from Table 7, farmers from level A of the first group have influenced via their knowledge the farmers' knowledge of level B from the second group (0,0087732), or farmers from level B of the first group have influenced the farmers from level C of the second group (0,000063).

Also a certain correlation has been revealed between the levels of knowledge of farmers from the first and third, as well as from the second and third groups. But this correlation is weak or even absent. For instance, farmers from level D from the first group didn't affect the level of farmers' knowledge from level D of the third group (0,95297), or similarly, the knowledge of the farmers from level D of the second group didn't impact the knowledge of the farmers from level D of the third group.

Table 4
Levels and means of water resources management knowledge for three groups of observed farmers

##	Level	Range	Groups															
			I					II					III					
			Number of Farmers	In the group	In the groups	Mean	Stdev	Number of Farmers	In the group	In the groups	Mean	Stdev	Number of Farmers	In the group	In the groups	Mean	Stdev	
2	Low	0-5	13	43,3	14,4	3,23	1,16	22	73,3	24,4	3,4	1,05	26	86,7	28,9	3,08	1,2	
3	Medium	5-10	8	26,7	8,5	7,8	1,47	6	20	6,7	6,5	1,04	3	10	3,3	6,3	1,5	
4	High	10-15	6	20	6,7	12,9	1,94	2	6,7	2,2	14	1,50	1	3,3	1,1	12,63	0	
5	Very high	15-20	3	10	3,3	17,33	1,52	0	0	0	0	0	0	0	0	0	0	0
TOTAL (90)			30	100	33,3	10,24	1,44	30	100	33,3	5,97	0,89	30	100	33,3	5,50	0,675	

Table 5

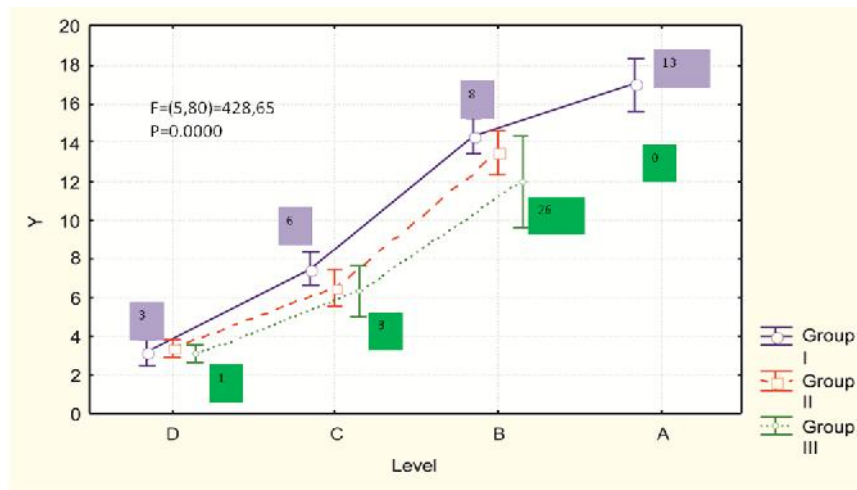
Categorization of indicators of correlation between groups

	1	2	3		1	2	3
	Level	Group	Y		Level	Group	Y
1	D	I	5	46	D	III	2
2	D	I	4	47	D	III	2
3	D	I	3	48	D	III	2
4	D	I	2	49	D	III	1
5	D	I	1	50	D	III	2
6	D	I	5	51	D	III	3
7	D	I	3	52	D	III	5
8	D	I	3	53	D	III	3
9	D	I	2	54	D	III	1
10	D	I	4	55	D	III	2
11	D	I	3	56	D	III	3
12	D	I	4	57	D	III	4
13	D	I	3	58	D	III	3
14	D	II	4	59	D	III	3
15	D	II	3	60	D	III	2
16	D	II	3	61	D	III	4
17	D	II	5	62	C	I	6
18	D	II	2	63	C	I	7
19	D	II	3	64	C	I	10
20	D	II	1	65	C	I	7
21	D	II	3	66	C	I	9
22	D	II	4	67	C	I	6
23	D	II	5	68	C	I	7
24	D	II	5	69	C	I	8
25	D	II	4	70	C	II	7
26	D	II	3	71	C	II	7
27	D	II	4	72	C	II	8
28	D	II	4	73	C	II	6
29	D	II	2	74	C	II	5
30	D	II	3	75	C	II	6
31	D	II	3	76	C	III	8
32	D	II	4	77	C	III	6
33	D	II	2	78	C	III	5
34	D	II	4	79	B	I	14
35	D	II	4	80	B	I	15
36	D	III	3	81	B	I	13
37	D	III	3	82	B	I	15
38	D	III	3	83	B	I	15
39	D	III	4	84	B	I	14
40	D	III	4	85	B	II	14
41	D	III	5	86	B	II	13
42	D	III	4	87	B	III	12
43	D	III	5	88	A	I	16
44	D	III	4	89	A	I	16
45	D	III	3	90	A	I	19

Table 6

Analyses of the variance of the evaluation of farmer's knowledge by groups

Univariate Tests of Significance for Y (IMPACT OF EXTENSION_ ANOVA.sta) Sigma-restricted parameterization Effective hypothesis decomposition					
Effect	SS	Degr. of Freedom	MS	F	p
Level	945,100	3	315,0332	9,135620	0,000026
Group	429,678	2	214,8390	6,230097	0,002986
Error	2931,145	85	34,4841		



The vertical columns show the intervals of reliability (0,95).

Graph 1. Dynamics of dependency of the observed groups

Table 7

The groups' influence on the level of knowledge

LSD Test; Variable: Y (Group.sta) Marked differences are significant at p < .05000												
Group Level	I A M=17,000	I D M=3,2308	I C M=7,5000	I B M=14,333	II A M=0,0000	II D M=3,5652	II C M=6,4000	II B M=13,500	III A M=0,0000	III D M=3,2593	III C M=7,6667	III B M=0,0000
I A		0.000000	0.000000	0.009848		0.000000	0.000000	0.008732		0.000000	0.000000	
I D	0.000000		0.000000	0.000000		0.501191	0.000063	0.000000		0.952971	0.000006	
I C	0.000000	0.000000		0.000000		0.000000	0.179961	0.000001		0.000000	0.863421	
I B	0.009848	0.000000	0.000000			0.000000	0.000000	0.476399		0.000000	0.000000	
II A												
II D	0.000000	0.501191	0.000000	0.000000			0.000127	0.000000		0.451940	0.000011	
II C	0.000000	0.000063	0.179961	0.000000		0.000127		0.000000		0.000021	0.227587	
II B	0.008732	0.000000	0.000001	0.476399		0.000000	0.000000			0.000000	0.000024	
III A												
III D	0.000000	0.952971	0.000000	0.000000		0.451940	0.000021	0.000000			0.000002	
III C	0.000000	0.000006	0.863421	0.000000		0.000011	0.227587	0.000024		0.000002		
III B												

Similar results have been obtained in the experiments of Sayed Mahmoud Hashemi [9], A.S.Rola [7]. Their studies also indicated very weak relationship. This is substantiated by the theory that some fields, such as water resources management or integrated pest management, are considered as abstract knowledge by the majority of farmers because of the hardness of comprehensibility, and for that reason diffusion among the farmers is usually insufficient and that's why it needs additional explanatory activities.

There are also significant correlations within the groups. Thus, as we can see from Table 8, the farmers' knowledge from the first group had significant influence on the farmers' knowledge from the second group (0,000987), as well as on the farmers' knowledge of the third group (0,000025). Besides, the impact on the third group is weak. But the farmers' knowledge from the second group couldn't affect any further the farmers' knowledge from the third group (0,29427). That's why the inaccuracy of that correlation is very high.

Table 8

The groups' influence on each other

LSD Test; Variable: Y (Group.sta) Marked differences are significant at p < .05000			
Group	Group I M=7,9667	Group II M=4,7000	Group III M=3,7000
Group I		0,000987	0,000025
Group II	0,000987		0,299427
Group III	0,000025	0,299427	

**1. Evaluation of the influence of socio-economic factors
on the level of farmers' knowledge**

In order to research the correlation between farmers' knowledge and socio-economic factors a regression model was created. The socio-economic factors were observed during this research via questionnaires, which were included in the regression model (Table 1). The factors included age, sex, farm income, irrigation lands and years of education.

Table 9

**Regression model of the influence of social-economic factors
on the farmer's knowledge
(X1-X5 – Categorial predictors, Y-dependent variable)**

	1 Age X1	2 Sex X2	3 Farm income X3	4 irrigation land X4	5 years of education X5	6 Y-1st group
1	30	0	0	0	8	5
2	25	0	1	0	8	4
3	24	0	1	0	8	14
4	18	0	2	0	8	1
5	20	0	2	1	8	7
6	35	0	2	1	8	10
7	34	0	2	1	8	13
8	40	0	2	1	8	3
9	31	1	3	1	10	3
10	32	1	3	1	10	15
11	41	1	3	1	10	4
12	43	1	3	1	10	6
13	45	1	3	2	10	8
14	50	1	4	2	10	3
15	46	1	4	2	10	2
16	47	1	4	2	10	9
17	40	1	4	2	10	7
18	45	1	4	2	10	3
19	46	1	4	2	10	6
20	47	1	4	2	10	7
21	55	1	4	3	15	16
22	56	1	5	3	15	16
23	54	1	5	3	15	19
24	53	1	5	3	15	15
25	59	1	5	3	8	5
26	65	1	6	4	8	3
27	72	1	6	4	8	4
28	64	1	6	4	8	15
29	68	1	6	4	8	2
30	66	1	6	4	8	14

For the farmers from the first group (who have participated in training programs) the following regression correlation between the level of knowledge (dependent variable) and years of education (independent variable, X5) has been obtained (table 10).

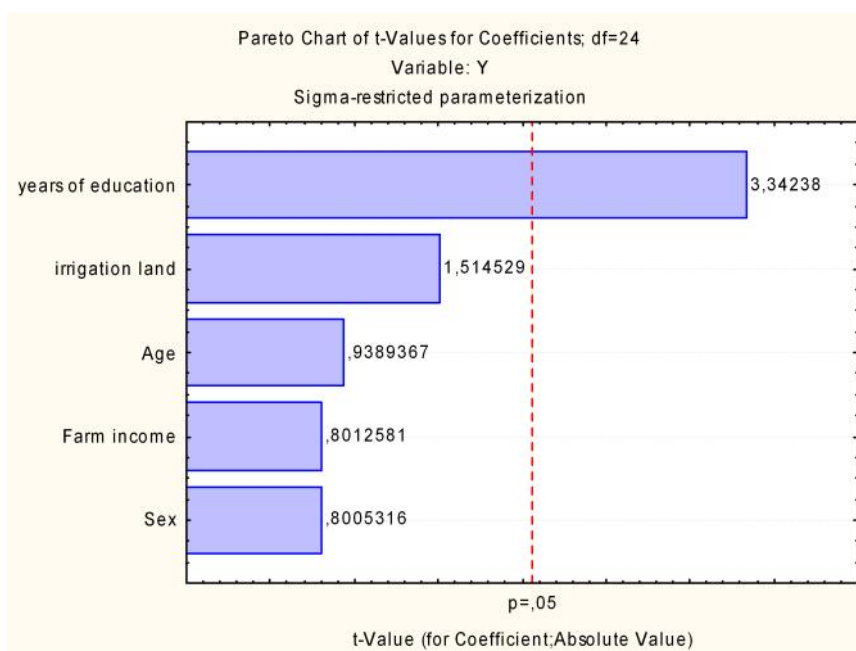
$$Y = 1,30772 + 1,40780 X_5, R^2 = 0,66, R^2_{adj} = 0,31, k = 24 F = 3,74 p < 0,05$$

The null-hypotheses have been rejected, because $F_{critic} > F_{calc}$. The strength of the correlation is medium, because the factor connected with the years of education affected the model by 31%.

Table 10

Parameters of the Regression model

Dependent Variable	Test of SS Whole Model vs. SS Residual (relationship I-st group.sta)										
	Multiple R	Multiple R ²	Adjusted R ²	SS Model	df Model	MS Model	SS Residual	df Residual	MS Residual	F	p
Y	0,662082	0,438353	0,321343	359,8728	5	71,97456	461,0939	24	19,21224	3,746286	0,011971



Graph 2. Analyses of the impact of socio-economic factors on the level of farmers' knowledge from the first group

As we can see from Graph 2, no other factors impact the level of farmers' knowledge.

No influences of the socio-economic factors on the level of farmers' knowledge from the second and third groups have been noticed.

Conclusion and Suggestions

This research has given us the opportunity to make the following suggestions:

1. The farmers' level of knowledge increases if they participate in educational extension workshops.

2. Complete understanding of the same topic can only be gained by farmers from the same group and high residual knowledge can only be achieved if the same workshop discusses the respective topic at least three times. If the workshop is conducted less than 3 times, approximately 67,7% of farmers cannot fully grasp the topic of the consultancy. Therefore the suggestion is that consultancy teams implement consultancies in one community at least three times for the same subject.

3. Farmers, who have participated in trainings and have acquired new knowledge, can impact the knowledge of farmers who haven't taken part in education programs, if the latter are connected with the former, and that correlation is significant in order to achieve enough amount of knowledge. But the impact of the farmers' knowledge from the first, as well as from the second groups on the farmers' knowledge from third groups is weak or absent. This is the reason why knowledge doesn't diffuse well to other community members if it remains unaccompanied by additional explanatory activities.

4. Of all socio-economic parameters only the years of education have impact on the level of farmers' knowledge. The strength of the influence is medium which enables us to affirm that agriculture-oriented higher education should be obligatory for all the citizens who are occupied with agricultural activities. Consequently, a suggestion has been made to the Government of the Republic of Armenia to draft a bill about the introduction of obligatory agriculture-oriented higher education for the farmers occupied in the agricultural sector.

Referencics

1. Ann R. Braun, Graham Thiele and Mar a Fern ndez, farmer field schools and local agricultural Research committees: complementary platforms for integrated decision-making in Sustainable agriculture, Agricultural Research & Extension Network, *Network Paper No.105* July 2000, 20 p.

2. Erbaugh J, Mark Erbaugh MJ, Donnermeyer Joseph, Kibwika Paul. Evaluating farmers' knowledge and awareness of Integrated Pest Management (IPM): Journal of International Agricultural and Extension Education, 2001, p. 47-53
3. Harutyun Gevorgyan, Hrachik Javadyan Analyses of communication barriers during consultation processes, Proceedings, Volume 50, book 5.1 Economics and Management, university of Ruse „Angel Kanchev”, 2011, p. 101-106
4. Julia A. Gamon, Ismail Mohamed, Larry D. Trede, Self-Perceived Orientation Training Needs of Extension Professionals in Iowa, Journal of Agricultural Education, 1992, p. 24-30
5. Neal Schmitt Uses and Abuses of Coefficient Alpha Psychological Assessment, 1996, Vol. 8, No. 4, 350-353
6. Rebecca Clements, Jeremy Haggard, Alicia Quezada Technologies for Climate Change Adaptation, TNA Guidebook Series, 2011, 218 p.
7. Rola AC, Jamias SB, Quizon JB. Do farmer field school graduates retain and share what they learn? An investigation in Iloilo, Philippines; 2002.
8. Thomas W. Ley, Surface Irrigation Systems, Cooperative Extension Of Washington State University, 2003, p 5.
9. Seyyed Mahmoud Hashemia, Muhammad Mokhtarnia, J. Mark Erbaugh, Ali Asadia, Potential of extension workshops to change farmers' knowledge and awareness of IPM, Science of the Total Environment 407, (2008), 84-88
10. Sultana (Tania) Kapiki. The impact of Economic Crisis on Tourism and Hospitality: Results from a Study in Greece. Central European Review of Economics and Finance, vol. 1. No 2, 2011
11. Water for food, water for life. A comprehensive assesement of water management in agriculture, edited by David Molden, 2007, 48 p.
- 12.

CROPWAT

13. 3.D. 5rkafa uav, @.M. Ka~aduav, N.1. 1~acuav, @. L. 3‡x cuav
lc a aukv mx p dan~x,iuav teixdve k patetanaoav cvapanaoavh,
5 o acx nx,iuav fa -ca -tav pktvamvdk ve h <e|-va-ukv
Ba abark pav a-ze-nx,i-ux,vx,t, 5 ‡av, Mne- a-vaoe n, 2008, g{
48-50
14. <http://www.statsoft.com/textbook/reliability-and-item-analysis/#cronbach>

INNOVATION EXPENDITURE AND ITS EFFICIENCY IN SLOVENIAN MANUFACTURING SECTOR

M. Sc. Peter Fatur

University of Primorska, Slovenia

The research investigates into the specifics of the relationship between the company's innovation inputs and its business performance in the case of Slovenia's medium-size and large manufacturing companies.

A positive correlation between the ability to successfully launch new products and the sustained economic performance has been confirmed in a number of studies, in spite of the various hampering factors which have an impact on innovation. However, pursuant to the national statistical data, only 35% of Slovenian companies prove to be active in innovation, 41% of these in the manufacturing sector – in spite of the breadth of the Eurostat definition of an „innovative company”, i.e. a company with „some” propensity to innovate. Official statistics also indicates that large enterprises tend to innovate more than small and medium-sized enterprises (SMEs). However, our research shows that as much as 56% of the Slovenian population of large and medium companies are non-innovative (i.e. having no revenues from innovative products in the previous three years). Furthermore, smaller companies tend to be more innovative as larger ones. As regards the subset of innovative companies, they do not necessarily show a better economic performance. In the case of hi-tech manufacturing, the innovation leaders' economic performance is lower than in the case of both the innovation followers and the non-innovators.

The proposed paper shows an empirical investigation of the above findings.

Key words: *innovation management, low-tech, hi-tech, Eurostat, productivity, value added.*

1. Introduction

The present paper focuses on an improvement of innovation performance in companies and addresses two problems. In developed countries, many research results show positive influence of innovation activities on business results of Hi-Tech companies. Moreover, examples of best practice are often transferred from Hi-Tech sector into Low-Tech one. However, even though national strategies often promote the development of Hi-Tech industries, such industries only yield 3% of value added in the OECD economies. The question which is not well researched is how to manage innovation processes in companies as to the level of their technological development level. As there are considerable differences

between Low-Tech and Hi-Tech companies, the innovation management models used for Hi-Tech companies are not always directly transferable to Low-Tech ones. The additional challenge is connected to Hi-Tech companies in Slovenia (a case of country in transition), where most innovative companies fail to achieve apposite business results.

The second research challenge is related to statistical data. The Community Innovation Survey for Slovenia [1] represents the basic statistical instrument for innovation performance measurement in the EU countries. The survey data have an advantage in being obtained from a significant part of all companies (since the completing of questionnaire is compulsory). Besides, the methodology is standardized around Europe and relatively well known among respondents/companies. However, it is aimed primarily at benchmarking at a country level. Therefore, the data have only a limited applicability for the studies focused on innovation relations at a company level. Our research aims at developing a methodology which would enable the use of EU statistical data on innovation at the micro level and, based on the use of these data, to identify factors affecting the companies' innovation performance.

Two main objectives of our research are as follows: i) to develop a methodology enabling the use of EU statistical data on innovation for studies at the micro (company) level and ii) based on the use of these data, to identify the relation between innovation inputs and innovation performance as regards the companies' technological level.

2. Methodology

The research was performed in 624 Slovenian medium- and large-size companies operating in the manufacturing sector. Groups of Low-Tech (actually Low and medium Low tech) and Hi-Tech (High and medium High tech) were created according to Eurostat/OECD classification [2]. Within each of these groups, the two key variables that represent a measurable output from the innovation process were defined as: RII („Index of revenues from innovation”), i.e. a proportion of total turnover resulting from innovations (either new to the market or new to the company only), and RMI („Index of revenues from market innovation”), i.e. a ratio of turnover from innovations new to the market to total innovation turnover. The values of the output indices served as criteria for grouping the companies. Accordingly, three groups were formed: Non-innovators (N), Innovation Followers (F) and Innovation Leaders (L), i.e. companies having a high (above median) proportion of turnover from innovations and a high (above median) proportion of turnover from „radical” innovation in total innovation turnover (high RII

and high RMI) as presented in Figure 1. A methodology is described in details in [3].

Innovation groups were compared with non-parametric tests (Mann-Whitney's, Kruskal Wallis's and Pearson's chi-square test was applied as per the type of data) in order to establish in establish a relation between their innovation and business results.

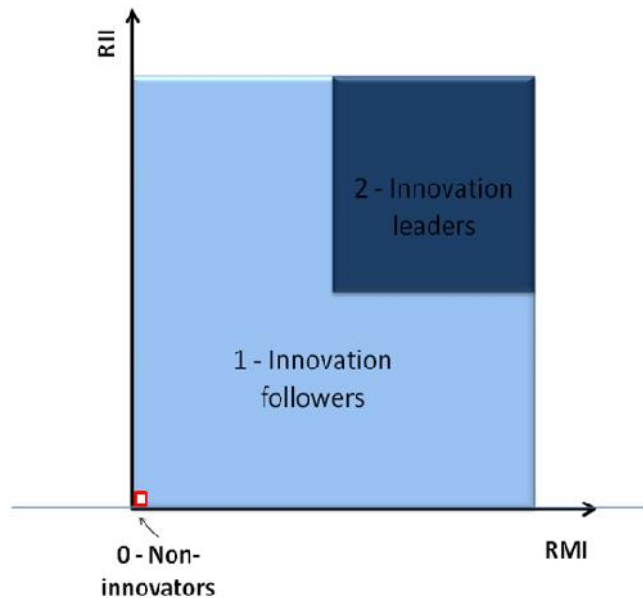


Figure 1. Division into Non-innovators (N), Innovation followers (F) and Innovation leaders (L) per each of the two groups of companies

3. Results

3.1. Innovation expenditure level

Results indicate that innovation expenditure as a proportion of revenues from sales („investments in innovation”) significantly differ both a) between sectors of industry and b) between dissimilarly innovative companies within a particular sector of industry. Hi-Tech companies invest a higher proportion (3.48%) than Low-Tech (1.94%). Innovative companies invest in innovation substantially higher proportions of their assets than non-innovative companies. As regards comparison of innovation followers and innovation leaders, the groups in the Low-Tech category prove to be similar, while the innovation

leaders in the Hi-Tech category invest in innovation half as much as the innovation followers.

Processing companies invest 2.30% of their revenues from sales in innovation on average. Companies in group N invest less than 1% of their revenues from sales in innovation, while the remaining groups invest 3.7 or 4.5%, respectively. More substantial innovation investments thus coincide with enhanced innovation results (higher values of RII and RMI).

3.2. Innovation expenditure structure

As per scope, investments in the acquisition of machinery and equipment necessary for creating innovations (Variable *Machinery*) prevail and exceed a half of all assets invested in innovation (Figure 2). The companies invest slightly less than a third of their assets into R&D (either intramural (*IntraR&D*) or extramural (*ExtraR&D*)), while the remaining part is predominantly invested into training (*Training*) and marketing of innovations (*Market*).

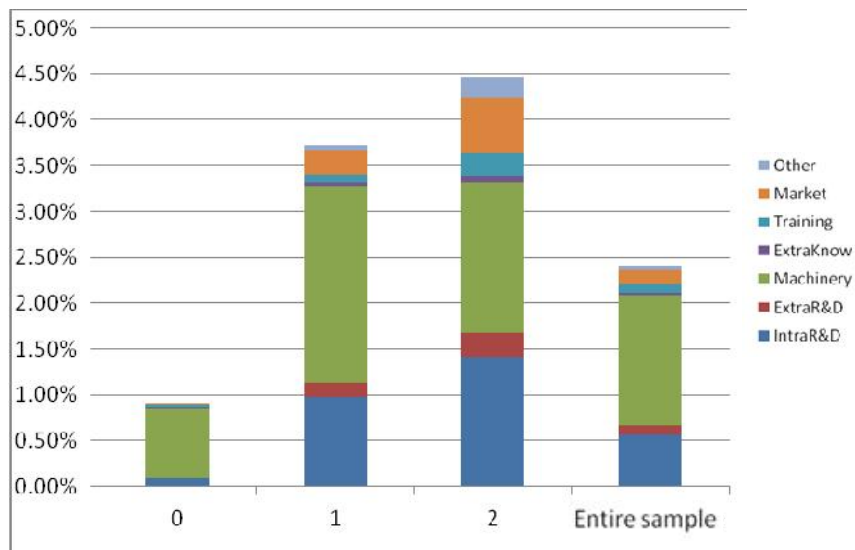


Figure 2. Structure of investments as per innovation groups, processing sector of industry

The structure of investments differs as per groups of dissimilarly innovative companies. Considering modest investments of non-innovative

companies (0), the comparison of investment structure between innovation followers (1) and innovation leaders (2) seems reasonable. If particular categories of expenditure are joined logically, it may be summarized that:

- in the Low-Tech group the innovation leaders invest more in creating intellectual property than the innovation followers (index 2.00), while the proportion of technological investments is lower (0.69) and investments in marketing of innovations higher (1.86),
- in the Hi-Tech group the innovation leaders invest more in creating intellectual property than the innovation followers (index 1.67), the proportion of technological investments is also higher (1.20) as are the investments into the marketing of innovations (2.40).

3.3. The efficiency of exploiting invested assets

Beside the amount of investments into innovation, the efficiency of exploiting these assets also influences on the revenues from innovation. As demonstrated, the innovation leaders invest more into innovation than the innovation followers, and at the same time transform these investments into revenues more efficiently (higher 1/CRIT). In the group of innovation followers, the company with one invested Euro into innovation creates €1.6 of revenues on average in Low-Tech or €1.9 in Hi-Tech group, while in the group of innovation leaders €4.3 of revenues in Low-Tech and €7.7 in Hi-Tech (Table 1).

Table 1

The proportion of investment expenditure in revenues from innovations (CRIT) and the ratio between created Euros of revenues as per every invested euro (1/CRIT (average)) as per groups

	<i>Innovation followers (F)</i>					<i>Innovation leaders (L)</i>				
	<i>Average</i>	<i>Median</i>	<i>N</i>	<i>StDev</i>	<i>1/CRIT</i>	<i>Average</i>	<i>Median</i>	<i>N</i>	<i>StDev</i>	<i>1/CRIT</i>
Low-Tech	62%	12%	175	216%	1.6	7%	4%	29	9%	14.3
Hi-Tech	53%	14%	95	111%	1.9	13%	11%	18	11%	7.7

3.4. Economic results of innovation

In the case of Low-Tech, the innovation leaders are economically more successful than the followers and non-innovative companies. Companies appertaining to the group of innovation leaders record the fastest growth. Net revenues of this group grow the fastest of all the groups in all analysed periods (07/06, 08/07, average growth 08/06). Furthermore, the number of employees in the period 06/08 grows in the group of innovation leaders, while decreases in the other two groups. Innovation leaders are more profitable (the highest recorded ROE, ROA), whereat ROE in the period 06/08 also grows the most rapidly. Finally, the innovation leaders record the highest growth in wages and salaries, and together with the innovation followers also a third higher gross value added per employee (2008) than the companies not active in the field of innovation.

In the case of Hi-Tech, the innovation leaders are economically less successful than the innovation followers and non-innovative companies. As to the revenues per employee the innovation leaders perform slightly better than non-innovative companies and roughly similarly than the innovation followers, whereat as the only one of the three groups they record negative average growth in revenues per employee in the period 06/08. All groups in Low-Tech record a drop in ROE in the period 06/08, whereat the innovation leaders record the most substantial drop (given that also ROE (as well as ROA) prove to be the lowest in the group of innovation leaders). Innovation leaders achieve similar gross value added per employee (2008) as the other two groups, yet the lowest growth in wages and salaries. More indicators (equity, assets, wages and salaries) indicated above average or at least an average increase in the group of innovation leaders in the period 06/07, yet this growth proves to be below average in the entire analysed period (06/08).

3.5. Innovation profiles of both company groups

In both groups of processing companies (Hi-Tech, Low-Tech) the value (€) of revenues created by a company with one EUR of innovation expenditure (1/CRIT) is substantially higher (more favourable) with the innovation leaders than innovation followers. In Low-Tech group the innovation leaders record eightfold higher value than the innovation followers, while in the Hi-Tech group only fourfold higher. In Hi-Tech sector the transition from the group of followers into the group of innovation leaders thus requires more substantial investments and generates poorer results than in the Low-Tech sector. Advancement into the group of innovation leaders thus proves „easier” for the Low-Tech group than for the Hi-Tech

one. Innovation leaders in the Low-Tech group record better business results than the innovation followers, which means that endeavours towards the advancement into the group of innovation leaders in the case of Low-Tech sector may generate good results (also financial) relatively faster.

4. Summary and Discussion

As demonstrated, there are 56% of non-innovative companies operating in the manufacturing sector (without any revenues from innovations in the period 2004 to 2006), out of which almost a half of them operate in the processing sector. Only 6% of all companies appertain to the category of innovation leaders, 7.5% of which appertain to the processing companies. Pursuant to the same research carried out by SURS/Eurostat (on the basis of methodology applied the Eurostat research shows somewhat misleading innovation of the economy) indicates that 35.1% of Slovenian companies are active in the field of innovation. We do not have the said data on innovation active large and medium-sized companies available, yet it may be concluded that a proportion of such companies is substantially higher.

We established that innovative companies in both sectoral groups invest substantially higher amounts of assets in innovation than non-innovative companies, namely 3-4-times more.

Beside the value of investments into innovation, the efficiency of exploiting these assets also influences on the revenues from innovation. As demonstrated, innovation leaders invest considerably more into innovation than the innovation followers, and at the same time transform these investments into revenues more efficiently.

Comparing the success of processing companies in the field of innovation and business, it is obvious that innovation pays out in the Low-Tech group. The most innovative companies are also more successful pursuant to the majority of indicators, i.e. achieve for example for one third higher value added per employee. Contrary proves evident for the Hi-Tech group; the most innovative companies record poorer business results. What might be the underlying reasons? It is possible that in order for the Hi-Tech companies to gain considerable market shares with new products, they need to invest substantially more assets (into development, market). Investments into R&D and market do not bring positive effects in the company's balance sheet, well at least not in the short-term. Poor business results of innovative companies within the Hi-Tech sectoral group may be the consequence of poor development level of the sectoral group in Slovenia. Also those most successful (the highest RII and RMI) prove to be only average in comparison with the global competitors.

The innovation does not contribute to higher value added in the sectors with higher level of technologies (Hi-Tech). In order to increase value added per employee, breakthrough innovations are essential. However, there are only a few of such innovations in the Slovenian environment. Additional reason may be that despite increased investments the companies fail to manage their innovation processes with sufficient quality in order for the increased investments to bring quality results. Assuming this, a quality jump is necessary beside investments of higher quality into innovation. In praxis, this means that innovation activities need to be appropriately aligned. This means that it does not suffice to bring models and good practice into the company from abroad, yet it is necessary to manage innovation activities with due expertise and balance, and in sustainable manner as to the sector or specifics of a company.

The mentioned represents an important conclusion connected with national policies and innovation management in Hi-Tech companies. Another conclusion is related with Low-Tech companies. As we showed at the beginning, Hi-Tech industries gain only 3% of added value in OECD economies. Therefore, the national policies should not be focused on Hi-Tech sector only. Low-Tech companies gain a significant proportion of value added and using appropriate approaches for innovative management, the economic results can be achieved much easier than in Hi-Tech; especially in a short run.

5. References

- [1] SURS, „Inovacijska dejavnost v predelovalnih in izbranih storitvenih dejavnostih, Slovenija, 2004-2006, za asni podatki”. Statisti ni urad RS, 2008.
- [2] B. Felix, „Statistics in focus. Science and technology. High tech industries and knowledge based services.” Luxembourg: European Communities, 2006.
- [3] P. Fatur in B. Likar, „Statistical Analysis for Strategic Innovation Decisions in Slovenian Mechanical Industry, *Journal of mechanical engineering*, let. 56, št. 7-8, str. 497-504, 2010.

” 3) . - ”
, , , -
, , , -
, , , -
, , , -
4) . -
, , , -
, , , -
, , , -
5) , . -
, / . -
, , , -
6) , . -
, , , -
, , , -
7) - ” ” ,
1- . -
, , , -
8) , , , -
, , , -
9) . -
, , , -

10)							-
							-
11)							-
12)							-
							-
13)					2008-2010 .		-
				4,64%			-
14)		5,22%.					-
					2010 .	2008 . 9,53%, - 16,50%.	-
				14,60%.			-
		10,33%.					-
					35,60%	37,20%,	-
					26,16%	16,50%.	-
15)							-
(2008-2010 .)							-
							-

16)							-
							-
			5,7%				-
		2008 .					-
							-
							-
	3,35%		6,25%	2009 . –		3,25%	
	5,98%	2010 –		3,18%		5,83.	
17)							
							2010
	2008 .	109,48%,					-
		– 112,23%.					-
				2010 .		2008 . – 13%,	
						– 20%	
						e 12%.	
18)							-
				2010 .		2008 . – 10,13%,	
						14%	
		– 9,5%		8%.			-
							-
19)							-
							-
					2010 .	2008 .	
45,52%,							-
– 25%,		20%		16%.			-
							-
					: 32%	27%,	-
				0,62%	0,68%.		-
							-
							-

3.

, , -
 , , -
 . , -
 , , -
 , . , -
 . , -
 , -
 .

[1] ” , 2004.

[2] Oslo Manual – Guidelines for Collecting and Interpreting Innovation Data, Third Edition, OECD/Eurostat, 2005.

• •

” • •

”

,

,

.

,

,

.

-

,

-

.

,

-

.

,

:

;

;

•

•

•

•

-

;

-

•

;

-

•

;

,

-

/

1

.

-

,

,

-

,

.

-

.

-

-

1

,

,

-

.

, .
.
, -
, -
, -
, -
, -
.
, -
, -
.
, -
.
:
- , -
;
- -
, -
. -
:
- (-
, -
, -
.-

,
 , -
 .
 • -
 (),
 .
 -
 • -
 -
 , -
 -
 , -
 -
 , -
 .
 , (-
), -
 , , .
 , -
 .
 , -
 , -
 .
 (-
),
 , -
 .
 -
 , -
 -
 .

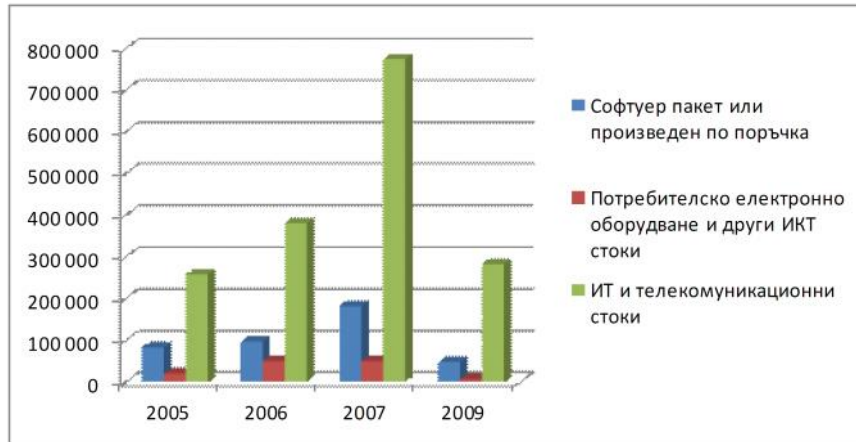
* * *

1. , 2005.
2. , 2004.
3. Peter, K. Nevitt, Frank J. Fabozzi. Project financing Published by Euromoney. London, Seven editions, 2000.

,
 .
 -
 ,
 1 , , 1 .
 (), 1
 -
 ” ” ” ”
 ” 2005 ” 2009 . ()
 2008).
I
 (.)

	2005	2006	2007	2009
	-	-	-	2 374
	-	-	-	50 942
,	-	-	-	4 821
	82 433	97 046	181 984	47 831
	19 568	50 511	49 787	6 827
	257 946	380 592	774 062	282 598

¹ <http://www.nsi.bg/otrasal.php?otr=17&a1=2422&a2=2497&a3=2498#cont> (09.04.2012 .)



. 1.

– 3 (2 (2005 2007).

) , (

) .

2007). (2009 3 -

,

,

2. 2012 .

” ”

” ”

127 . ” ”

² <http://www.mtitc.government.bg/page.php?category=492&id=3585> (09.04.2012)

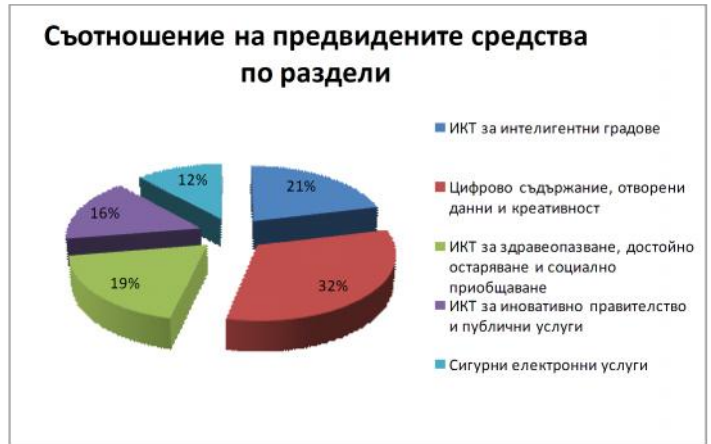
„

2

2

” (.)

	27
	41
	24
	20
	15



. 2.

”

”

2007 .

”

3,8 . 39

27 .

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. This is essential for ensuring the integrity of the financial statements and for providing a clear audit trail. The records should be kept in a secure and accessible location, and should be updated regularly.

2. The second part of the document outlines the various methods used to collect and analyze data. This includes the use of surveys, interviews, and focus groups. Each method has its own strengths and weaknesses, and the choice of method should be based on the specific needs of the study.

3. The third part of the document describes the process of data analysis. This involves identifying patterns and trends in the data, and testing hypotheses. The results of the analysis should be presented in a clear and concise manner, and should be supported by appropriate statistical tests.

4. The fourth part of the document discusses the importance of ethical considerations in research. This includes the need to obtain informed consent from participants, and to ensure that the data is used only for the purposes stated in the research proposal.

5. The fifth part of the document concludes by summarizing the key findings of the study. It also provides recommendations for future research, and discusses the implications of the findings for practice.

2001 . „ - ”

” . 2001 ” - ”

” ” .

”

1 (2005)

2 (2002)

1996-1997 . ”

2006 . „ ”

¹ Dell’Ariccia, Giovanni & Marquez, Robert. Lending Booms and Lending Standards. CEPR Discussion Papers 5095, C.E.P.R. Discussion, 2005, 2511-2546.

² , 2002, 5-22.

” .
-
2007 .. , -
(MiFID). MiFID .
-
MiFID .
, - , -
” ” , -
, , - -
, , -
- , , , -
? , -
(1873) 4 (1912) . 3
, - - 5 (1988)
, , -

³ Ross, Levine, Sara Zervos. Stock Markets, Banks, and Economic Growth. The American Economic Review, Vol. 88, No. 3, (Jun., 1998), 537-552.
⁴ King, Robert G. and Levine, Ross. Finance and Growth: Schumpeter Might Be Right. Quarterly Journal of Economics, August 1993, 717-738.
⁵ Lucas, Robert E., Jr. On the Mechanics of Economic Development. Journal of Monetary Economics, July 1988, 3-42.

,

(1994), (1994) ⁶(1994 .)

,

,

,

,

(Stock Markets, Banks, and Economic Growth, 1998)

(

)

,

,

,

,

,

,

,

,

1976-993 .

47

⁶ Devereux, Michael B. and Smith, Gregor W. International Risk Sharing and Economic Growth. *International Economic Review*, August 1994, 535-550.

⁷ Bencivenga, Valerie R. and Smith, Bruce D. Financial Intermediation and Endogenous Growth. *Review of Economic Studies*, April 1991, 195-209.

⁸ Atje, Raymond and Jovanovic, Boyan. Stock Markets and Development. *European Economic Review*, April 1993, 37(2/3), pp. 632-40.

， ， -
， ，
-
， ，
9.
， ， -
， ， -
-
， ，
10 (1994 .) ，
” ”
， ，
-
-
， ()
-
11.
90-
， ，
-
-
-

⁹ Ross Levine; Sara Zervos. Stock Markets, Banks, and Economic Growth. *The American Economic Review*, Vol. 88, No. 3, (Jun., 1998), 537-552.
¹⁰ G. Bekaert. Market Integration and Investment Barriers in Emerging Equity Markets. *World Bank Economic Review*, 9 (1995), pp. 75-107.
¹¹ JOSEPH E. STIGLITZ. Capital Market Liberalization, Economic Growth, and Instability. 2000, 1075-1085.

and Development”) 1969 . ¹² („Financial Structure

(1973) (1973)

¹² Ross Levine; Sara Zervos. Stock Markets, Banks, and Economic Growth. The American Economic Review, Vol. 88, No. 3, (Jun., 1998), 537-552.

¹³ Furman, J., & Stiglitz, J. E. (1999a). Economic crises: evidence and insights from East Asia. Brookings Papers on Economic Activity, 2, Brookings Institution, Washington, DC.

1. Atje, Raymond and Jovanovic, Boyan. Stock Markets and Development. *European Economic Review*, April 1993, 37(2/3), pp. 632-40.
2. Bencivenga, Valerie R. and Smith, Bruce D. Financial Intermediation and Endogenous Growth. *Review of Economic Studies*, April 1991, 195-209.
3. Devereux, Michael B. and Smith, Gregor W. International Risk Sharing and Economic Growth. *International Economic Review*, August 1994, 535-550.
4. Levine, Ross. Stock Markets, Growth, and Tax Policy. *Journal of Finance*, September 1991, 1445-1465.
5. Levine, Ross and Renelt, David. A Sensitivity Analysis of Cross-Country Growth Regressions. *American Economic Review*, September 1992, 942-963.
6. Obstfeld, Maurice. Risk-Taking, Global Diversification, and Growth. *American Economic Review*, December 1994, 1310-1329.
7. , , 2002, 5-22.
8. CAPITAL MARKET LIBERALIZATION By: National Institute of Economic & Social Research, The European Commission, 1996.
9. Ross Levine; Sara Zervos. Stock Markets, Banks, and Economic Growth. *The American Economic Review*, Vol. 88, No. 3, (Jun., 1998), 537-552.
10. Furman, J., & Stiglitz, J. E. (1999a). Economic crises: evidence and insights from East Asia. *Brookings Papers on Economic Activity*, 2, Brookings Institution, Washington, DC.
11. Furman, J., & Stiglitz, J. E. (1999b). Economic consequences of income inequality. *Federal Reserve Bank Review of Kansas City*.
12. Stiglitz, J. E. (1998). Responding to economic crises: policy alternatives for equitable recovery and development.
13. JOSEPH E. STIGLITZ. Capital Market Liberalization, Economic Growth, and Instability. 2000, 1075-1085.
14. King, Robert G. and Levine, Ross. Finance and Growth: Schumpeter Might Be Right. *Quarterly Journal of Economics*, August 1993, 717-738.

15. Lucas, Robert E., Jr. On the Mechanics of Economic Development. *Journal of Monetary Economics*, July 1988, 3-42.
16. Geert Bekaert, Marcio G. P. Garcia, Campbell R. Harvey. The Role of Capital Markets in Economic Growth. November 1995, 5-11.
17. – . -
18. Dell’Ariccia, Giovanni & Marquez, Robert, 2005. Lending Booms and Lending Standards. CEPR Discussion Papers 5095, C.E.P.R. Discussion, 2511-2546.
19. Bekaert, G. Market Integration and Investment Barriers in Emerging Equity Markets. *World Bank Economic Review*, 9 (1995), pp. 75-107.

**THE ANALYSIS OF FINANCIAL REPORTS
FOR THE CONSTRUCTION
COMPANY „TEUTA – CONSTRUCTION”
IN THE CONTEXT OF 25 OTHER
BUILDING COMPANIES FOR THE FISCAL YEAR 2008**

*PhD Candidate Arjeta Hallunovi, Doc. Dr. Arif S. Murrja
University „Aleksander Moisiu”, Albania*

Abstract

The object of this study is the analysis of financial reports for the construction of commercial society „Teuta-Construction”¹ in relation to the average of 25 other building societies included in this study. To analyze financial reports and the balance sheets are used the financial statements of 25 other building companies for the fiscal year 2008. The balances and financial statements are approved by authorized accounting experts, upon legal request of the taxation entity in Albania. The analysis is based on contemporary literature of finance for financial rappers of private economic entities and on National Accounting Standards (NAS), which derive from the International Accounting Standards (IAS). To identify strategic role of the construction industry in the domestic economy we rely on statistic data of the Institute of Statistics in Albania and on the monthly publication of „Ndertuesi” magazine, an edition of the Association of Constructors of Albania. The analysis of financial reports in this sector is very important for the economy and also aims to identify the problems of construction companies related to liquidity, activity, productivity and debt.

***Key words:** The analysis of exchange, the short-term liquidity coefficient, the coefficient of acid test, inventory turnover coefficient, the coefficient of deposited accounts turnover, the coefficient of deposit average period.*

I. Introduction

The rappers of specialized international institutions, despite being stuck to the confirmation that the current crisis is the worst in the world has experienced, after the depression of 1929, also warn that any state will

¹ On 28 February 1992, by a team of N.SH.N.Durres, consisting of engineer and economist, was established the building society „Teuta Construction”, becoming the first private society of construction with entirely Albanian capital in the district of Durres and the first in Albania. In 18 years of its activity, besides many infrastructure facilities, has conducted well over 952 apartments with about 103,000 m2 construction, and service facilities around 30,800 m2.

escape it. The crisis is affecting the countries in development of Central and Southeast Europe, which were first thought as untracked and Albania does not make any exception here (Curri, 2009). From this perspective, the industry of construction is one of the sectors that developed more in the Albanian economy, after 1990s of the last century.

Even if industry of construction delays at reacting to economic changes, because the activity is based upon orders given some months and years ago, it is estimated that in 2008 the work in this sector decelerated. Based on the data of member federation about for the annual statistical rapport, the total of activity of construction in 27 EU countries in 2008 reaches 1.3 billion euros, with a slight change compared to 2007. (Cordeel, 2009).

There is a totally different situation in Albania. Preliminarily, we inform you that from 2000 to 2007, the number of companies that conduct activities in the field of construction is increased by 27 percent (Curri, 2009). The average volume of construction companies' turnover is over 15 billion euros per year (Curri, 2009). From statistical data, we find that at the end of 2008, the construction sector, there were in all 2684 construction companies exercising their activities of which more than 800 in Tirana, 283 in Durres, 220 in Vlora, 106 in Shkodra, 139 in Fier etc... (INSTAT, 2009²& urri, 2009).

As a result of economic crisis in the construction sector during 2008, more than 600 companies, of 2600 nation wide level, have not exercised any activity, (Ndertuesi, 2009³). Only in the fourth quarter of 2008, sales decreased significantly compared to the third quarter of 2008. The number of unsold apartments is more than 4 thousand, apart thousands of unsold square meters of commercial environments (Ndertuesi⁴, 2009).

Since construction industry is viewed as a very important contributor in the gross domestic product, which for the 2008 holds 18,72% of this product (INSTAT, 2009 and urri, 2009), we will analyze financial rappers of 25 construction companies, in order to see the liquidity capacity, and their debt in relation to the share capital and total assets. Expressed in figures the weight of construction industry for 2008 is above 201 billion Albanian leks of gross domestic product, from 1975 billion in all (INSTAT, 2009⁵& urri 2009). There is a difficulty in analyzing financial rappers of private economic entities, due to lack of specialized institutions that calculate these ratios. A professional consult is associated with setting up a research institution. Projects at accurate levels do not go too far without an organization, scientific

² <http://www.instat.gov.al/>

³ Monthly publication, an edition of the Association of Constructors of Albania.

⁴ Ibid.

⁵ <http://www.instat.gov.al/>

institution, which will be not only the generator of these quality projects, but also their guarantor (Kaba, 2008).

II. Literature Review

After a brief overview on the importance of the construction industry in the domestic economy, we will elaborate the data recorded in the accounting from which financial statements derive, that will be used to analyze the financial situation of the 25 construction companies for the year of activity 2008 in Albania. Analysis of financial statements serves not only to the managers of economic entities, but also to their creditors. Through such analyses will be identified the weaknesses of the economic entity, and afterward its managers shall be led to make the necessary corrections, to enable productivity increase of activity and value of business. In addition to business managers, analyses of financial rappers are made by the creditors as well, who seek to measure the security of their loans (Herbert, 1995).

There are many average financial rappers calculated from the financial analyst. In finance, these rappers are classified into several groups, such as: (1) reports of liquidity, (2) reports of activity; (3) reports of productivity and (4) reports of leverage (Herbert, 1995).

In USA, the most popular industry averages are the 14 rappers compiled by Dun & Bradstreet and published annually in Dun's Review. According to the publication, private entities are classified by their numbers of Standard Industrial Classification (SIC) and rappers are subdivided according to size of the business (Herbert, 1995; Jones / Price, 1994). Also, in the USA, the groaning of financial rappers is made by the association „Robert Morris”. This is a national association of employees „bankers of loan, which publishes the industry averages in its annual magazine „Statement Studies”. These publications shows 16 rappers and private economic entities are classified by SIC numbers (Herbert, 1995). This study will analyze 13 financial rappers. The study does not include the percentage of gross profit, as this rappers is equal to the percentage of profit from activity.

III. Research Methodology

In this study we will briefly explain the use of data in the financial statements of the 25 construction companies according to liquidity rappers, specific weight of short-term assets, activity rappers, productivity rappers and debt rappers. These financial rappers shall be introduced according to the terminology of the International Account Standards.

IV. 1. Reports of liquidity

IV. 1.1. Short-term liquidity ratio

This report by the SNK terminology is expressed as follows:

$$\text{Liquidity short – term coefficient} = \frac{\text{Short – term assets}}{\text{Short – term liabilities}} \quad (1)$$

To society „Teuta-Construction” sh.p.k., for fiscal year 2008, this report is:

$$\text{Liquidity short – term coefficient} = 1.375.293 \cdot \frac{509}{1} \cdot 133.471.422 = 1,21$$

This report shows the company short-term liquidity ratio „Teuta Construction” that for each currency that will have to pay within the year, has 1.21 available asset, which can be in cash or other assets to be exchanged in cash during the year.

For most of industries it is desirable that the ratio of short-term liquidity to be 2:1. A short-term liquidity ratio 2:1, meaning use the assets for liquidating of short-term liabilities and will remain available 50% of assets.

Conclusions on short-term liquidity ratio

In our study of 25 building trade companies, the average of short-term liquidity ratio is 2.4 [Murrja, Sotirofksi, 2011]. In connection with the society „Teuta Construction” sh.p.k., we conclude that short-term liquidity ratio of this society (1.21) is much below the desired level (2) and as well as below the average of the companies involved in the study (2,4) and applied to the U.S. average (2.5). So the society „Teuta Construction” sh.p.k. has a very poor liquidity.

IV.1.2. Acid test ratio

This report by the SNK terminology is expressed as follows:

$$\text{Acid test coefficient} = \frac{\text{Short – term assets – inventories}}{\text{Short – term liabilities}} \quad (2)$$

To society „Teuta-Construction” sh.p.k., for fiscal year 2008, this report is:

Conclusions on the report of the acid test

Acid test ratio is 1.19. This ratio is lower than short-term liquidity ratio (1.21) that was calculated above. Obviously, the change comes as a result of inventory, to society „Teuta Construction” sh.p.k. A low acid ratio (usually

less than 1:1) indicates that the entity may have difficulty in repaying liabilities that are at the end of maturity. In our study of 25 building trade companies, acid test ratio average is 1.95 [Murrja, Sotirofksi, 2011]. In connection with the society „Teuta Construction” sh.p.k., we conclude that the acid test ratio of this society (1.19) is the critical threshold level (1) and almost 2 times lower than the average of the companies involved in study (1.95) and to the applied average in the U.S. that is 1.8 [Mayo, 1995:286].

IV. 2. Reports of activity

IV.2.1. Inventory turnover ratio

This report by the SNK terminology is expressed as follows:

$$\text{Inventory turnover coefficient} = \frac{\text{Sales}}{\text{Average inventory}} \quad (3)$$

To society „Teuta-Construction” sh.p.k., for fiscal year 2008, this report is:

This indicates that the annual sales were 10.7 times higher than the level of inventory. Inventory rotates 10.7 times per year or about every 1.2 months ($12:10,7 = 1.2$). The inventory turnover can be expressed in days, by dividing the number of days of the year with the inventory turnover ratio.

$$\text{The inventory turnover} = \frac{360}{\text{inventory turnover ratio}} \quad (4)$$

Thus, in our case the company „Teuta Construction” sh.p.k., has an average index of inventories to 43 days ($360:10,7 = 34$). Since, the direction can predict that inventory will be held for an average of 34 days, the society must find funding opportunities for this period to cover inventory.

IV.2.2. The report of the accounts receivable turnover

A different definition replaces annual sales on credit, with annual sales. Report accounts receivable turnover is calculated as the ratio of annual sales to accounts receivable. This ratio is expressed as follows:

$$\text{Deposited accounts turnover coefficient} = \frac{\text{Sales}}{\text{Accounts receivable}} \quad (5)$$

To society „Teuta-Construction” sh.p.k., for fiscal year 2008, this report is:

$$\text{Deposited accounts turnover coefficient} = \frac{287.247.157}{1.321.912.196} = 0,21$$

This indicates that annual sales were 0.21 times more than accounts receivable, which means that accounts receivable will be paid for 57 months (12/0, 21) or over 4.76 years (57/12).

IV. 2.2.1 The time it takes to collect the accounts receivable

$$\text{The average collection period} = \frac{\text{Accounts receivable}}{\text{baily Sales}} \quad (6)$$

To society „Teuta-Construction” sh.p.k., for fiscal year 2008, this report is: The ratio of average collection period can be calculated even in a different way, as follows:

$$\text{The average collection period} = \frac{360}{\text{Report of accounts receivable}} \quad (7)$$

In the above example we have:

The average collection period expressed in months is 55 months (1567/30) or expressed in years was 4.6 years (55/12).

Conclusions on the average time of collection

In our study of 25 building trade companies, average collection period is 321 days [Murrja, Sotirofksi, 2011]. According to the report of the average collection period of the construction companies involved in the study, for sales made the companies must wait for the average collection for about 321 days. In connection with the society „Teuta Construction” sh.p.k., we conclude that the average collection period (1567 days) is about 4.9 times greater than average (321 days) of companies involved in the study.

IV.3. Reports of effectiveness (productivity)

These reports (Jones/Price, 1994 and Herbert, 1995) are calculated as follows:

$$\text{Percentage of profi from the activity} = \frac{\text{Earnings before interest and taxes}}{\text{sales}} \times 100 \quad (8)$$

$$\text{Percentage of net profi} = \frac{\text{Earnings after taxes}}{\text{sales}} \times 100 \quad (9)$$

$$\text{Percentage of profit on assets} = (\text{Earnings after taxes}) / (\text{Total assets}) \times 100 \quad (10)$$

$$\text{Percentage of profit to shareholders equity} = \frac{\text{Earnings after taxes}}{\text{equity}} \times 100 \quad (11)$$

To society „Teuta Construction” sh.pk, the percentage of profit from the activity or gross profit percentage is:

Percentage of net profit is:

These two reports show that the company „Teuta Construction” sh.pk, has gained 0.18 ALL before interest and tax calculation for each ALL sale and has earned 0.034 ALL after interests for each ALL sale. In our study of 25 building trade companies, the average percentage of profit from the activity is 10.63% and net profit percentage was 9.9%. According to these reports of construction companies involved in the study gained an average of 0.1063 and 0.099 activity ALL after the interests of any sale.

To society „Teuta Construction” sh.p.k. rate of return on total assets is:

Rate of return on equity is:

This indicates that „Teuta Construction” sh.p.k.,gaining 0.0069 ALL for each ALL invested in assets and 0.96ALL for each ALL invested by shareholders' equity.

Conclusions on productivity reports

In our study of 25 companies building trade, the average rate of return on assets was 10.94% and the average rate of return on equity is 761.86%. According to these reports of construction companies involved in the study gained an average of 0.1094 ALL to assets and 7.6 ALL to shareholders' equity. Average net profit to shareholders' equity for companies in the study is 761.86% higher. It happens that equity is very small, and due to the legal definition in the moment of creation, with an initial capital of 100,000 leks (Article 38, Law no. 7638, dated 19.11.1992 „On Commercial Companies” in the Republic of Albania), and current law, where initial capital can not be less than 100 leks (Article 70, law no. 9901, dated 14.04.2008 „on Commercial Companies” in the Republic of Albania).

IV.4. The leverage ratios

The leverage ratios are calculated as follows:

$$\text{Debt to equity} = \frac{\text{debt}}{\text{equity}} \times 100 \quad (12)$$

$$\text{Debt to total assets} = \frac{\text{debt}}{\text{total assets}} \times 100 \quad (13)$$

The data are for the society „Teuta Construction” sh.pk, taken as a case study:

The first report shows that the company „Teuta Construction” sh.pk has 127 ALL debt for every share of capital. The second report shows that the debt has financed 92% of the assets of the company „Teuta Construction” sh.pk.

Conclusions on the leverage ratios

In our study of 25 companies building trade, the average debt to equity is 12,283% and the average debt to total assets is 63.48%. According to these reports of construction companies involved in the study have an average of 122.8 leks to equity and debt averaged 0.63 lek to total assets. Average debt to equity for building societies in the study is too high 12283%, which means that they have averaged 122.83 ALL debt for each currency in the share capital.

As we noted above equity is very small and this is because the legal definition in the moment of creation, with an initial equity of 100,000 ALL (Article 38, Law no. 7638, dated 19.11.1992 „On Commercial Companies in Republic of Albania), and the current law, where initial capital can not be less than 100 ALL (Article 70, law no. 9901, dated 14.04.2008 „On Commercial Companies in the Republic of Albania”). Also the average debt to total assets for building societies included in the study is very high 63.48%.

Bibliography

1. Hoti, I, (2009), Amvisimi/Financial Management.
2. Kumen H. Jones, Price B. Jean, Werner L. Michale, & Doran S. Martha, (1996), „Introduction to Financial Accounting” .
3. Mayo H., (1995), Finance.
4. Mayo H., (2007), Basic Finance.
5. Murrja A., & Sotirofski K., (2011), Financial Rapports in the Industry of Construction in Albania, According to Analysis of Exchange Within the Group.
6. Approved Institute of Chartered Accountants (group of authors, (2006), National Accounting Standards.
7. Institute of Authorized Chartered (group of authors), (2008), National Accounting Standards.
8. Pedone A., (1974), Elementi di Scienza delle Finanze, second edition.
9. Law no. 7638, dated 19.11.1992, On Commercial Companies in Republic of Albania.

10. Law no. 9901, dated 14.04.2008, On Commercial Companies in the Republic of Albania.
11. INSTAT, (2009), Republic of Albania.
12. (<http://www.instat.gov.al/>)

, , -
, , -
, , -
...”.[1] . . ”-
- -
, . . . -
, , -
, (), -
, .”[5] -
, . . . ” -
, , -
, ”.[4] -
, , -
, . ” -
: -
- , ; -
- , ; -
- (, , -
,) -
; -
- , -
.”[10] -
, , -
, , -
, . . . ” -
, , -
, , -
, , -

.”[10]

[8]

2006 .,

26,8%

55%

10-12%

50%

50%

2009

.”[7]

.”[2]

.[11]

.”[3]

1. (. 34 2) . -
 . . - : , 1955, . 634.
2. Bgvesti.com –
3. , . ” ” -
 – Engineering Review Magazine – issue 9, 2008
 December.
4. , . . -
 . – : , 1986, . 154.
5. , . . . -
6. „ - : , 2001, . 151.
 2006”.
7. – –
 31.08.2011 – ” -
 ” 2007-2013.
8. , -
9. , . . – . . , 1972, . 434.
10. . . . ” 04/
 08/2009/.
11. investor.bg – 10% -

-

E

” ”

Distance learning – a modern opportunity for innovations in the education sector: *The paper aims to demonstrate an innovative role of distance education in conditions of a modern education system, to show opportunities for creating favorable conditions for development of science and education for stimulating the appearance of unique knowledge and unique products as well as adaptation of innovations, collaboration work of the teacher and students through direct and constant online connection. Realization of effective and high quality learning experience in all educational institutions is an objective, which will be achieved by integrating the latest developments in information technology.*

Key words: *Distance Learning, Innovation, Education.*

-

-

-

-

-

,

-

-

); , -
-
(; ,)
, -
, -
, . -
, . . . -
, -
(). -
K , :
? -
[1, 4, 6, 7] .
XIX , 1840 .
1883 . Chautaugua Institute .
30- , -
.

¹ 2012, . 31-32.

, ² ,
 - ,
 ,
 ,
 - ,
 ,
 . 3
 -
 , e
 - 1.6
 99%,
 4 2011 . 51,4%, 16,4%.
 „download”
 -
 ,
 -
 ,
 e
 -
 ,
 ,
 ,
 ,
 ,
 ,
 a,
 - a, - a . .
 -
 -

² , . 2002, . 105-112.

³ , „ . . o

⁴ <http://www.nsi.bg/EPDOCS/Census2011>.

-

,

2016,

20

BBC.

Boston Consulting Group

2.3

2010

4.2

2016.

-

80%

3

50%

Boston Consulting

Group.⁵

200

,

,

,

(Internet of Things),

IBM

2015

Boston Consulting Group

3

,

,

Amazon, Apple, Facebook, Google, Baidu

Tencent

Yandex

,

,

-

-

⁵ <http://www.bbc.co.uk/news/business - 16753902>.

2001 .

28-

⁶ <http://www.bulnao.government.bg>

. , -
, -
. , -
XXI -
, -
. -
, -
, -
PostPC -
(; -
, -
) ; -
, -
” ” -
” ” ; -
, -
- -
; -
, -
, -
” ; -
. -
, -
- -

1. , . : .- -
, 1988, XVIII, 1, . 41-62.
2. , . . - .” ”,
11-17 2012, . 31-32.
3. e , „ . o -
, 50, 5.1, , -
, 2011, . 116-120.
4. , „ . -
. , 2003, . 256.
5. . -
, 2002, . 105-112.
6. , „ . -
. 1995, 6, . 78-83.
7. , . . 2004, 4, . 18-25.
8. <http://www.bbc.co.uk/news/business-16753902>, 2012.
9. <http://www.bulnao.government.bg>, 2012.
10. <http://www.nsi.bg/EPDOCS/Census2011>.

Gartner Group¹

¹ Data Mining. <http://www.gartner.com/it-glossary/data-mining/>, 1.04.2012 .

-----	-----	. /
-----	-----	

1.

2

EasyNN.

1
EasyNN

2

, 2011.

pos_ID	deg_ID	type_ID
1	2	1
1	2	6
3	3	1
...

2.

Untitled 2179117 cycles. Target error 0.1000 Average training error 0.099984
 The first 2 of 2 Inputs in descending order.

Column	Input Name	Importance	Relative Importance
0	pos_ID	50.3337	
1	deg_ID	49.5420	

. 1.

3.

0,1.

. (. . 2)

pos_id_zavisimosti.tvq 23342740 cycles. Target error 0.1000 Average training error 0.010063
The first 2 of 2 Inputs in descending order.

Column	Input Name	Importance	Relative Importance
1	deg_ID	42.4581	
2	type_ID	41.3060	

. 2.

4.

0,01.

EasyNN,
(. . 3)

Untitled 1794 cycles. Target error 0.0100 Average training error 0.010000

The first 2 of 2 Inputs in descending order.

Column	Input Name	Importance	Relative Importance
0	pos_id	12.8713	
2	type_id	5.7081	

. 3.

, , , -
, , -
, (,) , -
, , -
, , -
- (Easy NN), -
-
, .

5.

, ,
, , ,
, , -
, , -
, , -
, , -
, , -
, , -
, , -
, , -

1. , . ”, – , 2011. IntraWeb. ,, ”,
2. , . . IntraWeb. ,, ”, 2012.
3. Kim, J., . Ahn. A New Perspective for Neural Networks: Application to a Marketing Management Problem. Journal Of Information Science And Engineering 25, 2009, p . 1605-1616.

:

. - . .

” . ”

20

:

,

\$), 2005

2689.1

5421.4 (1483.54 \$)¹. 2011 (3215.4

,

,

:

, ,

,

. .

.

—

¹ http://www.geostat.ge/?action=page&p_id=118&lang=geo

,
 ,
 .
 - 2011 7.08%.
 (33,01% 2011
),
 - 30.71% (1).
 2009
 2008
 3.8%,
 (- 3.5%),
 4.9%, - 1.6%,
 4.9%, - 4.6%.² 2009
 851 - 9.4%
 2008 .
 2009
 1500 .
 537 \$, 16.3
 6.3% 2008 (2).

I

3

				,%		
	2009	2010	2011	2009	2010	2011
	111,82	147,47	181,66	6,48	7,11	7,40
, _ ,	529,22	639,12	774,22	30,70	30,80	30,71
	86,04	110,51	125,01	4,99	5,32	4,96

² http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto_barom12_02_march_excerpt_ru.pdf
³ http://www.geostat.ge/?action=page&p_id=118&lang=geo

	525,98	624,43	832,36	30,51	30,09	33,01
	199,52	205,63	189,38	11,57	9,91	7,51
;	271,48	347,95	418,57	15,75	16,77	16,60
-	1724,06	2075,10	2521,21	100,0	100,0	100,0
	26315,09	30467,30	35625,18			
,%	6.55	6.81	7.08			

2

4

\	1995	2000	2005	2006	2007	2008	2009	2010
, .	85	387	560	983	1052	1290	1500	2033
,	228	315	857	1346	1473	1872	1980	-
, \$	-	107	287	361	440	505	537	737
%-	-	16.1	13.1	14.1	13.8	13.7	16.7	18.1
, \$	-	129	237	257	277	337	311	329
, %-	-	10.9	7.1	5.8	4.7	4.5	5.9	5.4

2011 2820185 2010
 5. 39% 2012 , -
 6,

⁴ <http://data.worldbank.org/indicator/ST.INT.ARVL>

⁵ http://www.gnta.ge/upload/file/2000-2011_

⁶ http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/pdf/unwto_barom12_02_march_excerpt_ru.pdf

($- 60\%$, $- 39\%$) .
 $2,$
 , $-$
 (, 2000) $-$
 $-$
 , (2) .
 $-$
 $- 2011$ $- 63.4\%$.
 95.5% , 86.1% $-$
 25.2% , $- 24.8\%$, $- 9.9\%$
 $- 26.2\%$.
 () , 2011 : $-$
 , $-$, $-$ ”
 (, ” ,)
 ” ” , $-$ $-$ $-$
 , . . . $-$
 , $-$ $-$
 (20 2007)
) ” 2011 ” $-$
 ” , $-$ $-$ $-$
 . ” ” , $-$ $-$ $-$
 - ” $-$

7. ,

19-
(8-14 2011 ,)
2012 54-
2012-2013 ,

8.

erectus. VI . . . homo

() , III . . .
() ,

(308,3) ,
1688 (13 ,15

), 830 , 25000 ,
54768 ,300 ,
,2400

10 .

⁷ <http://south-caucasus.m.kavkaz-uzel.ru/articles/191602/>
⁸ <http://www.orexca.com/news/archives/3578>

, -

1. , : . -

2. . , . -

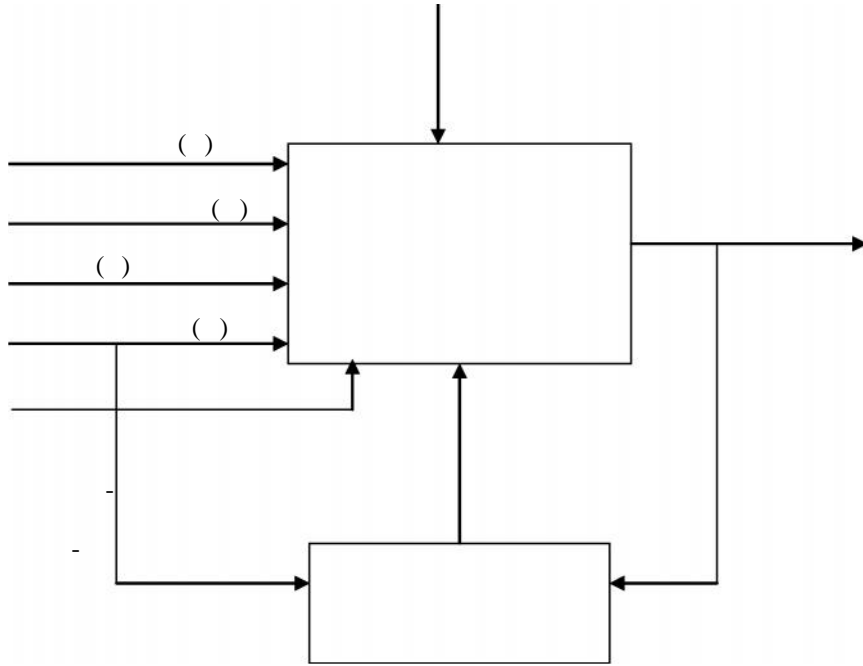
3. . , . -

, . : , , , , , . -

, , , , , . -

¹ .1, .2, ..,2000.

(, () -
 ,) -
 . -
 , . (-
). : ; -
 - ; (-
 -). -
 : -
 - ; -
 . -
 : , ; -
 - ; -
 - , . -
 , , -
 , , . -
 , , -
 . -
 (. .1). -



1.

. - ; -
 . : ; -
 - ; -
 - ; -
 - ; -
 - ; -
 - ; -

, -
 -
 , -
 : -
 - , ;
 - , ;
 - (,) -
 (); -
 , -
 , -
 (, -
). , -
 , -
 : -
 - ; -
 - ; -

-	-	;	,	-
-				-
				-
	;			
-				
-		;		;
-				;
-				
				-
				-
				-
				,
				-

XX

”1.

80-

”

”2.

(, , ,)

”....

”3.

¹ ” (Relationship Marketing) 70- 20 (Gummesson, E. Relationship Marketing as a Paradigm Shift: Some Conclusions from the 30R Approach. // Management Decision, 35/4, 1997, p. 268).

” (Berry, L. Relationship Marketing of Services – Growing Interest, Emerging Perspective. // Journal of the Academy of Marketing Science, Vol. 23, N4, pp. 236-45). 1983 . (Gummesson, E. A New Concept of Marketing, EMAC Annual Conference, Institut d’Etudes Commerciales de Grenoble, France, April, 1983).

² Gronroos, C. Defining Marketing: a Market-oriented Approach. // European Journal of Marketing, Vol. 23, N1, 1989, pp.52-60.

³ Donada, C., Dostaler, I. A Model of Supplier Dissidence in Flexible Vertical Partnerships. // Journal of General Management, Vol. 35, 3, Spring 2010, p. 27.

” . . . ()

” . . . ; ; ; ; .

” . . . , 16% , 84% -

18%, () 79%, 80%

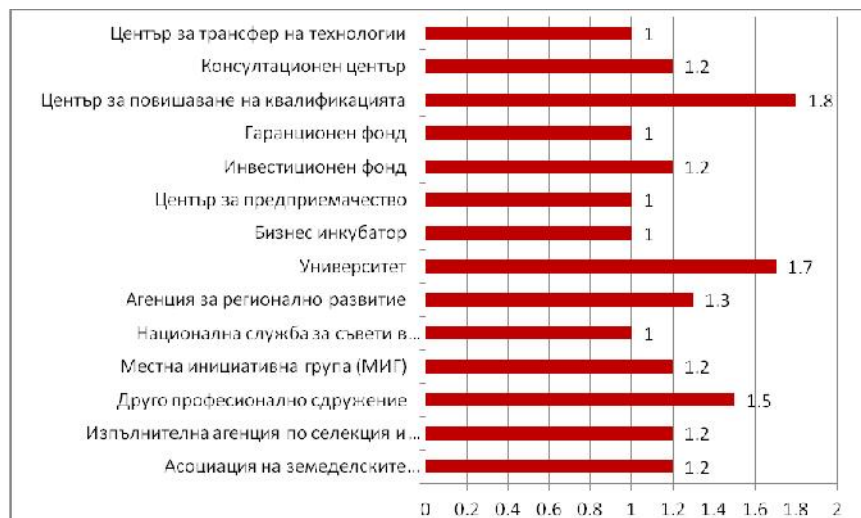
88 116 .⁴ 3

” . . . , 50%

⁴

, -
 , -
 , : , -
 / , . -
 50% . 30% -
 : , -
 15% .
 5. () -
 . (-
).
 : ;
 - , ;
 - ;
 - ;
 - ;
 , -
 . -
 , -
 . -
 , -
 . -
 , -
 . 16. -

⁵ 100,
⁶ 3- (1- ;2- -
 ;3-).



. 1.

6 , 4-
 (1 –
 ; . 1). (50%)
 , -

(67%),

, -

,

(). -

, **I**

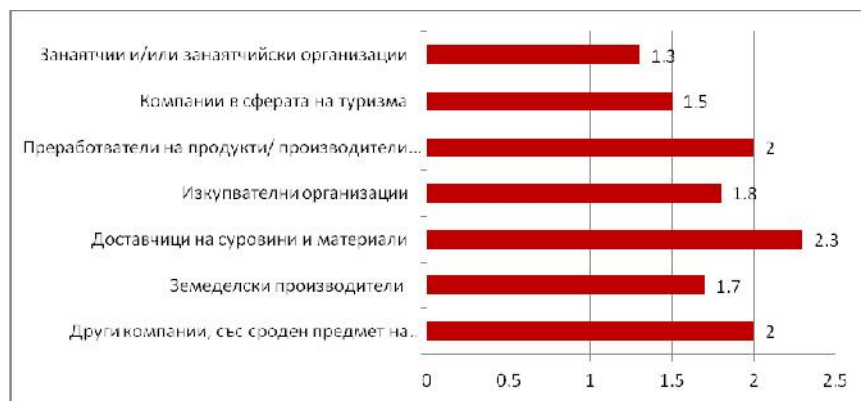
		-	-	
	-	50%	33%	17%
	-	67%	17%	17%
	-	50%	33%	17%
	17%	33%	33%	17%
	-	67%	17%	17%
	-	67%	17%	17%

20%

70%

(83%)
(50%). -

), () -
 , -
 , . -
 , .2. -
 4 – (1 – -
 4 –). -



. 2.

, -
 , -
 . 1/3 -
 / -
 : , -
 , -
 ; ; -
 / ; .
 , -
 . , -

:- ;
- / -
- ; -
- ; -
- .
- ,
- ,
- ,
- ,
- ,
- ,
- ,
- ,
- .
- ,
- ,
- ,
- .
- ,
- ,
- .

—
· - , ·
—
()
- · -
· () -
· -
· ,
- () ,
· -
· , -
· -
· -
· ,
· ()
) ,
1 (1997 .)
0,5-2,0
· ,
· ,

¹ McConnell, D. and Dillon, J., (1997) Farm management for Asia: a systems approach. FAO Farm Systems Management Series 13, FAO, Rome, Italy.

5 . ,
 ,
 ()².
 ”
 0,5 - . ” 0,5 1 - ”
 - ” ”³ 1 2 -
 (),
 (20 .) , 16 1 ,
 ” - 1 ”
 , - 8 .
 , 1 8 .
 ” ”⁴ (1969 .) ”
 100% . 50%
 - 50% ,

² <https://statistics.defra.gov.uk/esg/asd/fbs/sub/slr.htm>;

³ https://statistics.defra.gov.uk/esg/asd/fbs/sub/farm_size.htm;

⁴ Wharton, C. (1969) Subsistence agriculture and economic development, Aldine.

.34, 1 -

(1698/2005)

” , -

.”

4 , .(2 8). 1 4 , -2 -

” -

” -

” -

() (8). 2007 . -27 11,1 -

6,4 1 -

4,7

8 5. 1 1

2007 . -

50% (-15) 8 6.

-

-

5 90% 2007 . -

- 35%, - 29%, - 27%, 2,8% (- 22%)⁷.

⁵ http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/ef_esms.htm

⁶

⁷ http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/ef_esms.htm

,
 .
 :
 ,
 8 (1992 .)
 ,
 ;
 ;
 ;
 ;
 .
 ,
 .
 (1973 .)
 9 (2007 .)
 22 , 34 000 5 .
 80- 90- 20- ,
 ()
 10 (1999 .), (2007
 .)
 ()
 ,

⁸ Goetz, S. J. (1992) A Selectivity Model of Household Food Marketing Behavior in Sub-Saharan Africa. *American Journal of Agricultural Economics*, 74, pp. 444-452.
⁹ Hubbard, C. and Ward, N. (2007) Deliverable D8.2 Development of socio-economic and agricultural structures in selected rural regions in Ireland after EU accession SCARLED FP6 Project.
¹⁰ Lafferty, S., Commins, P. and Walsh, J. (1999) *Irish Agriculture in Transition – A Census Atlas*, Maynooth: Teagasc/National University of Ireland, Maynooth.

2

63,4%¹¹ (2008 .). 1989 . 47,1% 1999

(2008 .). -

(¹², 1997 .). -

¹³ (2009 .) -

2004 . 2,8

988 - 1

(” 2009 .). ”,

(-) .

2007-2013 .

1.

¹¹ Iraizoz, B. (2008) Deliverable D8.3: Development of socio-economic and agricultural structures in selected rural regions in Spain after EU accession, Public University of Navarra, Working Paper, SCARLED FP6 Project.

¹² Ceña, F. (1997) La agricultura familiar en España y la nueva PAC. Algunas consideraciones generales. *Options Méditerranéennes*, Ser. B, 12, pp. 233-239.

¹³ Wołek, T. (2009) Can we really talk about structural change? The issue of small-scale farms in rural Poland. In: Buchenrieder, G. & M llers, J., (eds.) *Structural change in Europe's rural regions - Farm livelihoods between subsistence orientation, modernisation and non-farm diversification. Studies on the Agricultural and Food Sector in Central and Eastern Europe*, Vol. 49. IAMO, Halle (Saale), Germany.

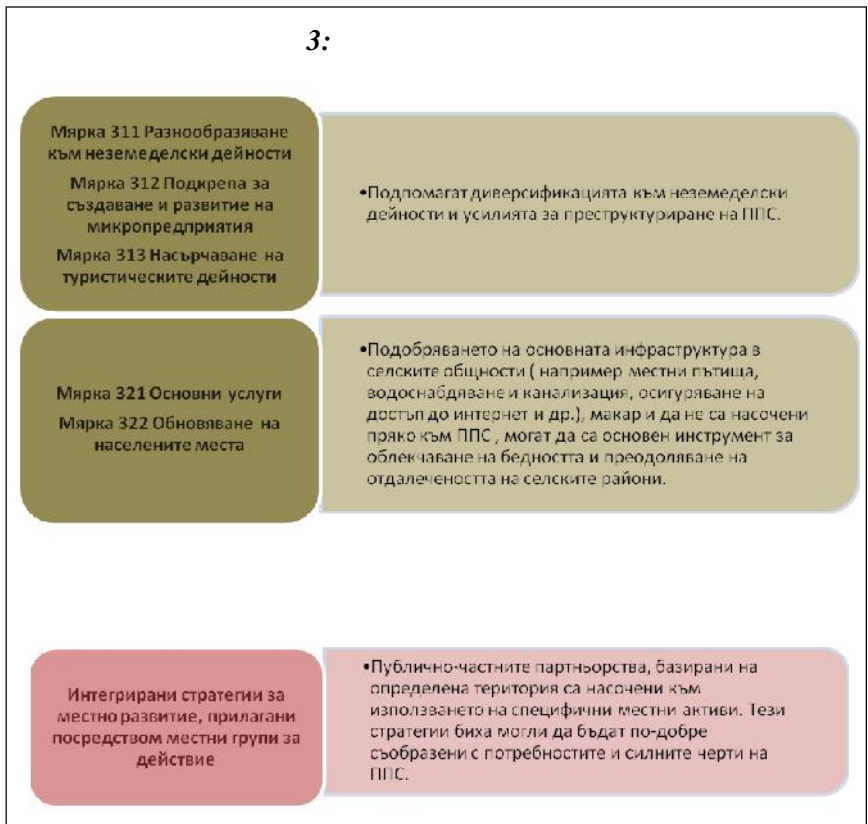
1:

Мярка 111 Професионално обучение	<ul style="list-style-type: none">• Първоначални стъпки за ППС да разберат с какви възможности разполагат за участие в програмите за развитие на селските райони. В Румъния и България се изисква кандидатите по мярка 141 да са преминали професионално обучение, за да бъдат подпомогнати след първите три години.
Мярка 112 Създаване на стопанства на млади фермери и Мярка 113 Ранно пенсиониране	<ul style="list-style-type: none">• При определени условия могат да окажат помощ при реструктурирането, като се улесни прехвърлянето на земята и преустановяване на дейността от страна на по-възрастните селскостопански производители.
Мярка 114 Консултантски услуги	<ul style="list-style-type: none">• Оказване на помощ при изготвянето на заявления и бизнесплановете.
Мярка 121 Модернизиране на земеделските стопанства	<ul style="list-style-type: none">• Допълнителна подкрепа за модернизиране и реструктуриране.
Мярка 125 Инфраструктура в селското и горското стопанство	
Мярка 131 Изпълнение на стандартите на Общността	
Мярка 132 Участие в схеми за качество на храните	
Мярка 141 Подпомагане на полупазарни стопанства в процес на реструктуриране	<ul style="list-style-type: none">• Подкрепа за реструктуриране и модернизиране на ППС.
Мярка 142 Създаване на организации на производители	<ul style="list-style-type: none">• Може да е средство, което да подпомогнеат ППС да преодолеят трудностите, с които се сблъскват при оценка на пазарите.

2:

Мярка 211 Плащания за необлагодетелствани райони в планински местности	<ul style="list-style-type: none">• Подобни годишни плащания могат да бъдат ценен източник на доход за домакинствата в планинските местности.
Мярка 212 Плащания за други необлагодетелствани райони	<ul style="list-style-type: none">• Те играят важна роля за поддържането на земеделска дейност (която в противен случай би могла да бъде преустановена).
Мярка 214 Плащания по програмата Natura 2000, агроекологични плащания	<ul style="list-style-type: none">• ППС могат да се възползват при извършване на агро-екологични дейности.

3:



. 1.

2007-2013 .

- 141
 -
).
 -
 -
 ,
 2 4 , 2-8 1-4 .
 - 62 60 .

	3000	10000	.
,	141	1500	-
,			-
.			-
”			-
”			-
.			-
,			-
.			-
,	(	(	2004 . 2007 .)
))	-
	-	,	-
-	.		-
-	-		-
,			-
,	-		-
-			-
,			-
.			-
.			-
,			-
,			-

1. Goetz, S. J. (1992) A Selectivity Model of Household Food Marketing Behavior in Sub-Saharan Africa. *American Journal of Agricultural Economics*, 74, pp. 444-452.
2. Hubbard, C. and Ward, N. (2007) Deliverable D8.2 Development of socio-economic and agricultural structures in selected rural regions in Ireland after EU accession SCARLED FP6 Project.
3. Iraizoz, B. (2008) Deliverable D8.3: Development of socio-economic and agricultural structures in selected rural regions in Spain after EU accession, Public University of Navarra, Working Paper, SCARLED FP6 Project.
4. McConnell, D. and Dillon, J., (1997) Farm management for Asia: a systems approach. FAO Farm Systems Management Series 13, FAO, Rome, Italy.
5. Lafferty, S., Commins, P. and Walsh, J. (1999) Irish Agriculture in Transition – A Census Atlas, Maynooth: Teagasc/National University of Ireland, Maynooth.
6. Ceña, F. (1997) La agricultura familiar en España y la nueva PAC. Algunas consideraciones generales. *Options Méditerranéennes*, Ser. B, 12, pp. 233-239.
7. Wharton, C. (1969) *Subsistence agriculture and economic development*, Aldine.
8. Wołek, T. (2009) Can we really talk about structural change? The issue of small-scale farms in rural Poland. In: Buchenrieder, G. & M llers, J., (eds.) *Structural change in Europe's rural regions – Farm livelihoods between subsistence orientation, modernisation and non-farm diversification. Studies on the Agricultural and Food Sector in Central and Eastern Europe*, Vol. 49. IAMO, Halle (Saale), Germany.

CURRENT PROBLEMS AND ALTERNATIVES IN THE INTERNATIONAL AGRICULTURAL TRADE

*Assistant Professor, PhD, Biljana Ciglovska
International University of Struga, Macedonia*

Abstract

The international agricultural trade liberalization is one of the most controversial issues within the international trade, which instigate numerous problems. The traditional conservative position that WTO members are defending regarding eliminating the agricultural trade barriers, counts on the fact that countries do not want to be dependent on food from other governments. Therefore the agricultural sectors and especially the agricultural trade have special treatment, because it is a very important source of foreign currency for many developing countries. But, the agricultural sector is not the only sector in the economy of the country and it is not so powerful to individually overcome the problems and utilize all benefits that comes from the international trade in order to lower the poverty and increase the economic development.

The main purpose of this paper is by combination of theoretical and practical aspects to consider that the Industrial sector is the one that could be essential and substantive condition for promoting the agricultural sector, through additional investments in agriculture, providing the basic infrastructure, implementing new technology and increasing the productivity and quality of agricultural production.

For that purpose will be used several methods that are usually used for economic analysis of the agricultural sector such as analytical, statistical, historical, comparative research method, method of observation, qualitative and quantitative method.

***Key words:** agricultural trade, WTO, food crises, transnational corporations, investments*

1. Problems within the international agricultural trade

Among the problems that the international agricultural trade is facing with, in particular can be highlighted, the global food crises and distortion of the world agricultural trade¹. Both problems are interrelated considering the fact that the major export by developing countries is consist of agricultural products, that are constantly confronting with the distorting effects of the

¹ Khor, . The commodities crisis and the global trade in agriculture: Problems and proposals, Third World Network, May 2005, p. 2.

continuing high agricultural protection in developed countries, which is accomplished by application of subsidies and high tariff rates.

These problems are also very important issues that should serve as a², which have been determined by the world leaders during 2000 and have deadline for achieving by 2015.

Regarding the issue of poverty and hunger, food crises is more lasting problem that impels the creation of United Nation Conference on Trade and Development (UNCTAD), whose main negotiation topic on the international agenda are the agricultural products.

Many developing and least developed countries are affected by the problems in the agricultural trade, having considered that the agriculture in these countries is an economic sector that provides existence for the majority of the population. Distortions and imbalances in the agricultural trade have influence on prices, incomes and living standards of small farmers in developing countries. These countries usually encounter with the following problems³:

- Price volatility of many agricultural products exported and imported by developing countries.
- The continued high level of protection in agricultural sectors by developed countries, including export subsidies and domestic support.
- The limited export capacity of many developing countries or impossibility to exploit the export benefits and benefits of agricultural trade in general.
- The fast import liberalization in developing countries and its influence to the prices on domestic market, incomes and living standards of farmers.
- The global system that regulates the agricultural trade which is currently unbalanced and creates disadvantages for developing countries.

Regarding the first problem, it is known that much of the foreign trade of developing countries is consist of agricultural products, which in some cases are confronting with sharp fall or rapid increase of prices in

² As the Millennium goals are determined the following: eradicate extreme poverty and hunger, achieve universal and primary education, promote gender equality and empower women, reduce child mortality, improve maternal health, combat HIV/AIDS malaria and other diseases, ensure environmental sustainability, develop a global partnership for development.

³ Khor, . Op.cit. Third Wolrd Network, May 2005, p. 3.

international market. For example, during the period 1980-2000, world prices of 18 major export products were reduced by 25% (World Commission on the Social Dimension of Globalization 2004: p83), while in the last few years the prices of agricultural raw materials are growing rapidly surpassing its recent level of seventies of last century⁴.

The effects of the price fall were negative for many countries, considering that it causes significant disruption to the countries' terms of trade and losses under their influence, while the rapid growth of prices has different influence to countries depending on whether they are net food importers or exporters.

The main reasons for the price growth are: growing demand for agricultural products in fast developing countries; neglecting the agricultural sector in many developing countries in the last decades; increasing costs for farmers as a result of high fuel prices and artificial fertilizers; increased demand for agricultural raw materials for biofuels production and lack of arable land and so on.

Another significant problem is the continuing high level of protection in developed countries. Despite the signing of the Agreement on Agriculture aimed at reducing the protection and subsidies, developed countries are still protecting their agricultural sector. This problem is due to the weaknesses of the Agreement and its implementation.

Namely, although the developed countries are reducing the subsidies from the red box, at the same time they are increasing the volume of subsidies from the green and blue box, resulting with significant increase of the total domestic support. The use of subsidies in developed countries leads to artificially maintain a high level of production and realization of production surpluses which are sold on the international market by use of dumping. Due to this practice farmers in developing countries are facing with huge losses.

The third problem of developing countries is the insufficient capacity for utilizing the benefits from the free trade, respectively the insufficient production and sale capacity. Even if they have favorable market access, the limited offer does not allow them to utilize the benefits. Developing countries are struggling with the following limitations: lack of appropriate export strategies, lack of incentives, lack of training and instructions, credit and technical assistance to companies, lack of marketing strategies and techniques and lack of government support.

⁴ Polaski, S. Rising food prices, Poverty and the Doha Round, Carnegie Policy outlook, May 2008, p. 2.

The fourth problem is the effects of the import liberalization on developing countries as a result of which farmers are exposed to a strong competition which leads to reduction in their production, incomes and threatening their living standard. The reasons for this effect of the import liberalization are the unfair trade practice that are used by developed countries like, dumping, subsidies and domestic support⁵.

The problems in the agricultural trade still remain the main topic for discussion within the current Doha Round of negotiations, where developed countries still have not offered significant reduction of the subsidies, while asking developing countries to substantially reduce the import tariffs.

For that purpose, during the current Doha round of negotiations developing countries should play up for implementing a new instrument within the existing Agreement on Agriculture, on the basis of which these countries will be able to successfully emphasize their developing concerns such as, food safety and rural development, they should urge for keeping the possibilities for using the green box measures in order to achieve the goals for rural and agricultural development, as well as to urge for increasing the limit of *de minimis* support and renewal of the „peace clause” and its adjustment according to the developing countries needs⁶.

2. Alternatives for promoting the agricultural trade in developing countries

Agricultural sector alone of oneself can not achieve the desired economic growth and development of countries and can not fully exploit the opportunities offered by the international trade. This sector is necessary to be supported with appropriate level of infrastructural, industrial and technological development of countries. In that context the investment (domestic and foreign) can play a key role in promoting agricultural production in developing countries, contributing for increasing productivity, bringing agriculture closer to the world standards, exceeding the limited export capacity and utilizing the special and differential treatment that they have within the WTO regarding the agricultural trade.

Starting from the aforementioned problems facing the agricultural trade, possibilities and perspectives for promoting the same, could be seen in their quick and efficient resolving. Namely, although the rapid growth in prices

⁵ Polaski, S. Op.cit. Carnegie Policy outlook, May 2008, p. 11.

⁶ Wert, . Agri-environment and Rural Development in the Doha Round, Trade knowledge network, International Center for Trade and Sustainable development (ICTSD), June 2003, p. 6.

of agricultural raw materials and products in recent years greatly affects developing countries known as net food importers, nevertheless they could be used as an incentive for promoting and increasing the volume of agricultural production and agricultural export from developing countries.

***2.1. The high prices of agricultural products
on international market – incentive for promoting
the agriculture in developing countries***

In case of committing a review of the situation on agricultural markets years ago, it will be determined cyclical movement of products prices and significant changes and transformations in the agricultural techniques and systems. According to the studies made by FAO regarding the state of the food markets on a global level⁷, very often was called into question the food security issue, just because of the considerable variations in prices and supply of agricultural products.

According to the FAO analyses, the indexes for nominal prices of agricultural products during the period 2002-2008 were increased more than double (64%)⁸. Many countries were taking measures for adjusting their trade and consumer policies in response to high international prices, whereupon the most frequently used trade measures for protection from high prices are, reducing the import tariffs for crops, quantitative import restrictions and export restrictions and prohibitions⁹. Consumer policies include lowering the taxes for agricultural products and consumer subsidizing, as well as price control. From all measures that are applied, the export prohibitions and the price control have the most distorting effects.

The price boom of agricultural products during 2007-2008 made especially sensitive the crops and oil seeds prices, which led to great instability on the markets for these products. In contrast to the food crises that were happening during the seventies and were caused by the shocks on the supply side, the food crises during 2007-2008 were caused by factors on the demand side (especially the demand for biofuels) and it is expected to have long-lasting effects.

More over, many other factors are stating as reasons for the crises during 2007-2008, including production shortages, low stock levels, oils prices, rising incomes in emerging countries, depreciation of U.S. dollar, record petroleum prices, increased environmental concern and searching for

⁷ <http://www.fao.org/docrep/x4400e/x4400e00.htm#TopOfPage>

⁸ The State of Food and Agriculture, FAO 2008, p. 102.

⁹ Ibid, p. 109.

alternative energy sources. In addition, it is clear that the high price of agricultural products is an opportunity that developing countries should take into consideration in order to improve the agricultural sector and increase the agricultural export. But, the high prices alone can not lead to significant production and supply expansion of these products.

In order to respond on high prices, it is necessary greatly to increase the manufacturers' productivity, the infrastructural conditions, to implement new technology and provide access to modern inputs and essential finances, improved marketing and logistic, service and institutional support as well as effective government policies that could have great impact in acquiring these conditions.

For that purpose, permanent investments in research and development are vital for the agricultural sector in developing countries. The science and technology use in the agricultural development is important success determinant, but not sufficient by itself. Permanent and sustainable investments in computer and software agricultural equipment are indispensable, as well as investments in irrigation systems, rural road networks, rural education, market infrastructure and regulatory systems. Furthermore are necessary motives and initiatives for investments by the private sector that can respond to them individually or collectively in cooperation with the partners.

That leads to emergence of „new investors”¹⁰ in agriculture¹¹ such as, state governments, international public institutions, chambers of trade commerce, foreign investors and even the individual farmers, in order to provide food for emerging populations and agricultural raw materials for new industries. This means that, now the developing countries are getting the key role in securing the world with food and agricultural raw materials for their further processing, because together with the least developed countries are the only ones that still manage with unused arable land and water enough for implementing irrigation systems¹².

2.2. TNCs & FDI – considerable alternative for promoting the agricultural sector and trade in developing countries

The developing countries have many challenges for promoting and improving the agricultural production. What they should do, is to create a strategy for attracting foreign investments and ensure active participation

¹⁰ Many companies and government of Korea, Saudi Arabia and UAE are investing in agricultural production abroad, because of the lack of arable land and water for irrigation.

¹¹ World Investment Report, UNCTAD, 2009, p. 93.

¹² Ibid.

of their major carriers – the Transnational Corporations (TNCs), whereupon they should take into consideration the interests of all stakeholders and especially of local farmers and to enable their inclusion in the decision making process.

Developing countries should provide adequate institutional and government support through securing appropriate infrastructural assets, such as irrigation systems, construction of rural roads that will link the agriculture with the processing capacities and markets and their further maintenance. Another kind of support could be provided by technical training and instruction for better use and management of the land and water. This support could be ensured by giving opportunity to TNCs to participate in the domestic agricultural production through realizing foreign direct investments (FDI) or through Contract Farming.

TNCs participation in the agricultural sectors of developing countries will lead to modernization of agricultural production process through transferring contemporary technology, skills, know-how, education, through improving the work force productivity, accomplishing R&D activities, implementing standards, improving the work force productivity, better seed types and significant innovations in agriculture.

In terms of current use of investment opportunities offered by TNCs, it could be pointed out that, starting from 2000 and onwards especially increased attractiveness show the regions of developing countries, where the TNCs are involved in agricultural activities in over 110 countries world wide, such as Africa, Asia, Oceania, Latin America and Caribbean, the transition economies of SEE and CEE, which are host countries of agricultural FDI. TNCs may occur as manufacturers, food processors, retailers and wholesalers, and raw materials suppliers.

Furthermore, the developing countries can use their importance in the global development as investors' countries also, which is their opportunity to invest in exploitation of resources in other countries, invest in R&D activities and in production of necessary goods and turn them back to the investor country.

For that purpose it is recommended the host countries to undertake the following measures and policies¹³:

- Developing countries should strategically plan the agricultural production and the processing industry and to take into consideration the role that TNCs could play in the strategy implementation.
- Developing countries should pay special attention to the promotion of contract farming between TNCs and local farmers.

¹³ Ibid. P. 190.

- They should ascertain whether they will have greater benefits from the FDI or from the Contract farming and.
- The international community should facilitate the FDI access in developing countries through reducing the import tariffs and non-tariff barriers and agricultural subsidies in developed countries.

NCs will enable the developing countries to utilize their comparative advantages, to achieve an export competitiveness, better access to foreign markets and increasing of agricultural export through securing the things that are missing in developing countries such as: brand names, developed distribution channels and marketing and management skills

Conclusion

Nevertheless, the future and the prospects of agricultural sector in developing countries and the trade in agricultural products, will considerably depend on results and outcome of the Doha Round of negotiations, that will inevitably lead to reforms in trade policies of countries, whose instruments should affect the solution of food crises problems, rapid rise in prices, continuing high level of agricultural protection in developed countries and the issue of further liberalization of the international agricultural trade. In this respect, developing countries should determine invulnerable position within the current round of negotiations which will defend their interests and will procure measures for improving and facilitating their development. Among other things, they should play up for application of safeguard measures for protecting their markets from import surges, through establishing schemes for supply control and appropriate marketing mechanisms.

References

1. A.Wert,(2003), *Agri-environment and Rural Development in the Doha Round*, Trade knowledge network, International Center for Trade and Sustainable development (ICTSD)
2. S. Polaski, (2008), *Rising food prices, Poverty and the Doha Round*, Carnegie Policy outlook
3. M.Khor, (2005), *The commodities crisis and the global trade in agriculture: Problems and proposals*, Third World Network
4. M.A.Aksoy, J.C.Beghin, (2005) *Global agricultural trade and developing countries*, The International Bank for Reconstruction and Development / The World Bank
5. R.Baldvin, S.Evenett,(2009), *The collapse of global trade, murky protectionism, and the crisis:Recommendations for the G20*, CEPR

Books

1. BONILLA E., ROBINSON S., THOMAS M., YANOMA Y. (2002): *WTO, Agriculture and Developing countries: A survey of issues*, IFPRI
2. DIMITROVSKI D., TOSEVA G., SHAHOF A. (2003): *Results from the Uruguay round of the multilateral trade negotiations: legal text: WTO*
3. ROCESKA S. (2003): *International Trade*, University „Ss.Kliment Ohridski” – Bitola, Economic Faculty Prilep

Electronic publications

1. World Investment Report, UNCTAD, 2009, available at: <http://www.unctad.org/Templates/Page.asp?intItemID=1465>
2. The State of Food and Agriculture, FAO (2008-2011), available at: http://www.fao.org/corp/google_result/en/?cx=018170620143701104933%3Aqq82jsfba7w&q=the+state+of+agricultural+commodity+markets+x=0&y=0&cof=FORID%3A9&siteurl=www.fao.org%2Finvestment%2Ftci-pub%2Ftci-publications%2Fen%2F
3. <http://www.fao.org/docrep/x4400e/x4400e00.htm#TopOfPage>

. -

-

，
.
.
，
，
.

”()

，
.

e

， ”

”1

，
，
，
，
.

2.

1
2

”，1/2006， .38.

” ”

， ” ”

()，

：

；

()

(-)。 2010-2013

， ...

170 (. - 51 . . - 119 .)。

(65,6%)

, 18,8%

— , 15,6%

(; ; ; ,)。

(82%)

7% ()

6% ,) 5% ()

).

(34,4% (81,3%)³. 15,6 %

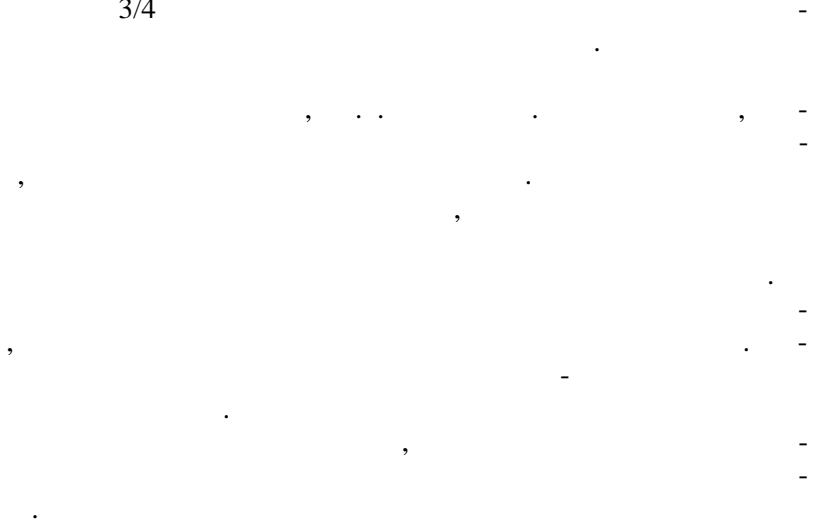
³

, 6,3% – , 3,1%
 :
 (21,9%); (15,6%) (12,5%);
 (9,4%) (6,3%). (51%)
 21% – 2 . 28% ,
 / . - , -
 10860 , 1/3 86 .
 (1 , 0,32 0,1% (33%) -
 , , - -
 1/5 (19%) 90%
 410 .
 (86%) .48% -
 , 39% – . -
 (,) , -
 - (84,4%) -
 , -
 6,3% . 5% -
 , , -
 (63,5%)
 2 4 . 13% -
 256

10 . 19% 1 . 5 10 .
, 4,5% -
) () ; -
; -
20,2%. - -
. -
4. -
- (63%) -
, 75% -
. -
” 3 ?”, 18,8% -
, , 18,8% - . 56,3% 3/4 -
, , , -
, , , -
, , , (-
), -
. -
, , -
- .
, , -
-
4 2010 . 2011 .
4481 . 2011 .
5,2%, . 4714 . 2011 .

,
 ,
 ,
 (40,6%)
 ()
 , 6,3% (31,3%)
 22% , 6,3%
 (93,8%), (34,4%) (31,3%).
 (60%)
 2/3
 1/3
 . 31,3%
 , 37,5% -
 25%
 6,3%
 (84,4%
).
 (28,1% 21,9%).
 . 3/4
 - (46,9%) (25%)
 90%
 43,8% (43,8%
).

3/4



1 :,, ”,1996, .10.

2 :,, ”,2009, .20.

- , . . . ; -
 - , . . . ; -
 - . - -
 . , -
 , , -
 , , -
 8 , , -
 . , . , -
 , , -
 , , 9 , -
 , . -
 , , -
 . : -
 XXVI, . 368, . 1), , (-
 , . . . , -
 , . -
 , -

⁸ 7R: The right product, in the right quantity and the right condition, at the right place, at the right time, for the right customer, at the right cost.
⁹ . . . : . . . : , 1995, . 230-232.

, -
 , -
 . , -
 : -
 , -
 : -
 , () , -
 . -
 . , -
 - , -
 . , -
 , -
 . -
 , -
 . 10 . -
 , -
 , -
 : -
 - , -
 - ; -
 - , -
 . -
 - , -
 ; -

¹⁰ . . . , . , . 312.

¹²

“ ” :,,

”,2011, .41-43. ”

1. , -
 , -

2. - , , -
 , -

7- R,
 .

3. -
 , -
 , -
 , -

4. -
 , , -
 , -
 , -
 , -

- .

... -
„ . . . ” -

(. . .) ;
, -
-

1.

()¹ (-
, -
()² -
, -
() .

1 . . . , ”

2 ” . . . ” .
”

-
BG 2004/IB/EC/01

, , , -
 . , .
 ,
 (,)
) (-
 , -
 - .
 , -
 , .
 2. , -
 .
 .
 , -
 , -
 , -
 , -
 , -
 , -
 , -
 () -

0,9%

2005-2009 ..

1.

1

(2005-2009)³

1	1 000					-% (2009) 7
	2005	2006	2007	2008	2009	
EU-27	155	199	111	105	95	100.0
	0.3	1.3	5.0	8.4	6.5	6.8
	0.3	0.9	2.7	3.4		0.0
	53	53.7	75.1	79.3	79.7	83.6
	0.5	5.0	22.1			0.0
			0.3			
	0.8	1.3	4.2	4.9	5.1	5.3
	100	137.0	0.4	7.1	3.2	3.4
		<0,1	0.9	1.9	0.9	0.9
EU-25	55	62	110	98	92	96.6

: Spanish Ministry of the Environment and Rural and Marine Affairs, EuropaBio, USDA, FAO and ISAAA.

³ Agriculture in the EU – Statistical and Economic Information Report 2010, European Commission, European Agriculture and Rural Development Commission, 2011, . 381.

4.

POTENTIAL FACTORS TO BE CONSIDERED IN A REGIONAL STRUCTURAL MODEL¹

*Adriana Grigorescu, PhD Full Professor
National School of political Studies
and Public Administration Bucharest, Romania²*

Abstract

One of the most desired aims of a nation is to have a proper sustainable development in all areas and regions to offer for all citizens suitable living conditions. Obviously there are a lot of factors that have to be grasping in order to transform the advantages in development leverage and to pass over the weakness.

The present paper is focused on discussing potential elements that could be considered in developing a structural model. Structural models give to the public decision makers potential alternatives of regional sustainable economy. Even if there is very hard to design a fully integrated regional structural model, any model that partially mark correlations in the system reach it points to show at least a face of the problem and to be a part of the solution.

Key words: *regional development, structural economic models, potential variables, design models*

1. Introduction

The definition of the regional development (RD) offered by Wikipedia³ is „Regional development is the provision of aid and other assistance to regions which are less economically developed. Regional development may be domestic or international in nature. The implications and scope of regional development may therefore vary in accordance with the definition of a region, and how the region and its boundaries are perceived internally and externally.”

¹ This paper/article was supported by the project, Post-Doctoral Studies in Economics: training program for elite researchers – SPODE” co-financed by the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.

² Additional affiliation: Institute for Economic Forecasting Bucharest, University Valahia from Targoviste.

³ http://en.wikipedia.org/wiki/Regional_development; February 16, 2012.

Structural equation modeling (SEM)⁴, upon the opinion of V. Wothke, is a general approach to multivariate data analysis, with the purpose of studying the complex relationships among variables, were some variables can be hypothetical or unobserved.

From our perspective the SEM are aiming to analyze and solve cases related with the components and relationships of a specific economic subject.

The local (national) interest in RD is to avoid the appearance of big discrepancies between the regions that could lead to differences in the quality of life between the citizens of the same county. Using this kind of model the public decision makers could identify the elements that are contributing to generate a certain development of the studied area.

Romania has delimited as land units at regional level – the regions, as legally established are 4 macro regions, 8 regions – North-West, Center, North-East, South-East, Bucharest-Ilfov, South-Muntenia, South-West Oltenia, West (as already named in the EUROSTAT database) and 42 counties. Macro regions are too large to highlight differences in economic development, so regions agreed by European Union and the counties could represent proper unit to be studied from this point of view. Also, the results of the model could be used in the distribution of the EU support (funds) in accordance with the needs at the regions level and at the county level for the responsibility of the policies implementation by the public administrative structures.

This is the reason to identify Endogenous Variable – Exogenous variable that could give information about the economic development of a region and build a simple SEM easy to be understood and used by the public decision makers (a.n. – non modeling specialists).

2. Previous Practice

We are presenting ideas of variables used in SEM of regional evaluation as a base of further discussion on „Potential variables to be considered for a regional development structural model (RDSEM)”.

a) **DIA – Motii (2005) model**⁵

The model proposed by Motii is a regional input-output model with a dynamic integrated approach. As the author mentions: „The result is a unique

⁴ Wothke, Verner. Introduction to Structural Equation Modeling Course Notes, Publisher SAS Institute Inc., SUA, 2010, pp. 1-6.

⁵ Motii, Bahman Brian (2005) A Dynamic Integration Approach in Regional Input-Output and Econometric Models, The Review of Regional Studies, USA, Vol. 35, No. 2, pp. 139-160.

Dynamic Integration Approach (DIA) model that not only accounts for structural change in a region's economy, but also is free from many of the inconsistencies and deficiencies associated with recent embedded-holistic models.”

The model was designed for the estimation of the employment demand in nine economic sectors: agriculture (AG), mining (MIN), construction (CONS), manufacturing (MAN), transport/communication/public utilities (TCPU), trade (TRA), finance/insurance/real estate (FIRE), services (SER), government (GOV). It could be used also to compare regions or countries.

Compared with the Coomes, Olson, and Glennon (1991) and Moghadam and Ballard (1988), a standard embedding model of employment that is defined as:

$$E_{it} = f (IEDR_{it}, FD_{it}, Z_{it}).$$

In this model the employment in each industry within a region at a given time (E_{it}) is a function of: an intermediate employment demand requirements ($IEDR_{it}$) component, a final demand (FD_{it}) component, and a time trend or other related variables (Z_{it}) component.

DIA model is introducing a Cost Adjustment Factor ($CAFit$) term that reflects components as: $LPRO_{it}$ – local productivity; $NPRO_{it}$ – national productivity; LW_{it} – average of local wage; NW_{it} – average per-worker national wage and salary disbursement. Compared with Rey and Jackson (1999) model, DIA model use two interactive variables $RMGDP_{it}$ (Real Gross Domestic Product) and $RMLWT_{it}$ (Real Total Wage and Salary Disbursement).

The obtained results over the test shows the superior performance of the DIA model *vis- vis* earlier holistic embedding models, further empirical investigation is needed. Application of the DIA model can be done for other time periods, different regions, and other states, qualifying it as a regional model.

From our perspective parameters as: *employment demand, productivity, wage and salary disbursement, GDP* must be considered in a regional structural model. Also, the economic sectors analysis can offer certain information about regional development.

b) A Dynamic Regional Model for Evaluating Resource Development Programs (DRM-ERDP)⁶

⁶ Tung, Fu-Lai, MacMillan, A., Framingham Charles F. A Dynamic Regional Model for Evaluating Resource Development Programs, American Journal of Agricultural Economics, vol. August 1976, Publisher and copyright holder's Agricultural & Applied Economics Association, 1976.

Mainly designed for the agricultural programs rather than sectoral strategies the model has the aim to evaluate the resources for the development programs.

The selected indicators used by the model are: GDP (total and divided through the economic sectors), employment, land in production, rate of utilization – labor and land, income. The model results offers information on about the effects of a 1 million \$ program in a certain area by six economic development indicators gross output, household income, income per farm, employment, government revenue, income distribution. The results of the model can be used by the policy makers to select the best programs structure in accordance with the priorities.

Indicators as *land production, government revenue, income distribution* could be taken into consideration.

c) XIAO-PING ZHENG Model⁷

The model proposed by Xiao-Ping Zheng is dealing with „Economies of Network, Urban Agglomeration, and Regional Development”.

The author shows that there are relations between the product output and the population density as urban agglomeration, but also between the product output and the transportation network efficiency by the time to reach the production place.

As the author concludes: „This paper presented a simple theoretical model to show that the network of transportation and communication that connects a number of cities or regions together will contribute great economic benefits to the urban and regional economy, as the urban agglomeration does. This theoretical conclusion was verified by using statistical data from the regional economies of East Japan. Such an empirical analysis confirmed that the local manufacturing production was significantly affected by the economies resulting from the network of highways and other main roads that link the city or region in question to the nationally central city, Tokyo, and the locally central cities, such as Sendai City, as well as being affected by the economies of urban agglomeration.”

The model highlights the fact that the density of the population has strong effect on the region development, but also the transportation network could facilitate or obstruct the employees’ movement and play an important role in economic growth.

⁷ Zheng, Xiao-Ping. *Economies of Network, Urban Agglomeration, and Regional Development: A theoretical Model and Empirical Evidence*, Regional Studies, Routledge Taylor & Francis Group, UK, Vol. 41.5, July 2007, pp. 559-569.

For a RDSEM it has to be considered as potential indicator the *population density, economic density-production output and transportation infrastructure and costs.*

d) Soviet Regional Model (SRM)⁸

In the paper „Regional Growth in the Soviet Economy: A model and Analysis” issued in 1986, Kurshirsky presents a model of regional development studying the 15 soviet republics between 1965 and 1980. The analysis of the regional development offers information about economic growth, productivity, investment etc., helps the central authority to issue strategies and to plan the further actions. The model use five productive sectors: industry, agriculture and forestry, transportation and communications, constructions, trade and others and one nonproductive sector – services.

The variables of the model were: gross value output, capital stock, investment, material expenditure, wages, profits, depreciation, employment, area sown, budget revenue, turnover tax, productivity.

The results of the model showed, at that time, that the goals of the five-year-plan will nor be reached and demonstrate the role of the mode as a workable tool for regional analysis.

We can retain for our RDSEM variables as *capital stock, investment and turnover tax.*

e) Regional Analysis of the Education System in Romania⁹

The study shows that between the Romanian counties are significant differences regarding the education system and the results of it in terms of qualified employees. The availability of qualified labor is also correlated with the economic output.

The conclusion of the study was: „It is natural that the economic developed counties to attract numerous active populations and implicitly to develop teaching structures for these, at all educational levels. We can say that, based on results of this analysis there could be important connections between the educational and economic system. A thorough analysis, also for a longer period of time could offer data about these relations. It is important to establish if the economic development leads to the progress of the educational system – to its development and success or it is possible

⁸ Kurshirsky, F. I. Regional Growth in the Soviet Economy: A model and Analysis, Journal of Regional Science, Vol. 26, No.1, 1986.

⁹ Grigorescu, Adriana. Regional Analysis of the Education System in Romania, paper presented to The 51st European Congress of the Regional Science Association International ERSA 2011, Barcelona, Spain, 2011.

that a well structured educational system to bring about the qualified labor force that produces economic development.”

This is why we consider that besides the population density, transportation network the *education network and the accessibility to the education programs* are very important variables to be considered in the regional development evaluation.

3. Conclusions

During the process of designing a SEM a very important step is to select the variables that could offer precious information that could lead to applicable results.

The screening of the bibliography offers several constructions of SEM with various application area using specific variables. The examples we select in this paper are coming from agriculture, labor, transport, education sectors and regional analysis.

As a conclusion of the paper we can consider that variables to be strongly considered at the construction of RDSEM are:

- economic output (GDP, profit, product output, lend production etc.)
- employment (demand, unemployment rate, labor)
- economic sectors and productivity
- wages (income, salary disbursement)
- population density
- transport, education & health networks
- capital stock and investment
- government revenue
- turnover tax.

The next step of the RDSEM development is to find out the correlation between the variables and the dependences and to find out the model equation.

Tacking into consideration that a model is a simplified form of the socio-economic real life, we do not affirm that the mentioned about variables are the only ones to be considered and they offer a full image of the regional development. The aim of the model is to offer clues to the public decision makers about further challengers they could face with.

Bibliography

- [1] Gylfason, T. Natural Resources and Economic Growth: What is the Connection?, CESifo (Center for Economic Studies and Ifo Institute for Economic Research), Working Paper No. 530, 2001.

- [2] Gujarati, Damodar N. Essentials of econometrics, 3rd edition, McGraw-Hill Education, Boston, Publisher, 2006.
- [3] Hanushek, E. A., Woessmann L. The Role of Education Quality for Economic Growth, Ifo Institute for Economic Research; Institute for the Study of Labor (IZA); CESifo (Center for Economic Studies and Ifo Institute for Economic Research); University of Munich - Ifo Institute for Economic Research, World Bank Policy Research Working Paper No. 4122, 2007.
- [4] Intriligator, Michael D. Economic and Econometric Models, Handbook of Econometrics, Volume I, Chapter 3, Edited by Z. Griliches and M.D. Intriligator, North-Holland Publishing Company, 1983.
- [5] Kurshnirsky, F. I. Regional Growth in the Soviet Economy: A model and Analysis, Journal of Regional Science, Vol. 26, No. 1, 1986.
- [6] Motii, Bahman Brian. A Dynamic Integration Approach in Regional Input-Output and Econometric Models, The Review of Regional Studies, Vol. 35, No. 2, 2005, pp. 139-160, 2005.
- [7] Tung, Fu-Lai, MacMillan, A., Framingham Charles F. A Dynamic Regional Model for Evaluating Resource Development Programs, American Journal of Agricultural Economics, vol. August 1976, Publisher and copyright holder's Agricultural & Applied Economics Association, 1976.
- [8] Verbeek, Marno. A guide to modern econometrics, 2nd Edition, Chichester, Publisher, 2004.
- [9] Zheng, Xiao-Ping. Economies of Network, Urban Agglomeration, and Regional Development: A theoretical Model and Empirical Evidence, Regional Studies, Routledge Taylor & Francis Group, UK, Vol. 41.5, pp. 559-569, July 2007.
- [10] Wothke, Werner. Introduction to Structural Equation Modeling Course Notes, Publisher SAS Institute Inc., USA, 2010.

... .. ,
... .. , .
(,)

” ”
”

”
(2011-2018 .)”

() , -
 , , -
 . -
 , ,
 (. 1).
I

	-
	.
-	-
-	,
	,

- - , -
 - ():
 1. ():
 • ;
 • ;
 • ;
 • ;

/

		-
		-
		-
	-	,
		()
		-

’ -
· -
, -
” (2011-2018 .)”. -
-
-
-

: -
 , -
 , . -
 : -
 1. , -
 60% -
 () -
 0,6. -
 2. , -
 40% -
 () -
 0,4. -
 : -
 • , -
 , -
 , -
 ” (2011-2018 .); -
 • -
 ; -
 • ; -
 • -
 . -
 , - , -

• -

-

,

.

,

,

.

,

,

,

.

,

.

.

,

,

,

:)

;)

RFID

;)

;)

,

,

,

.

,

,

Nielsen Global Online Consumer Survey 90%

70%

¹

2

F- (friends, fans, followers)

F-

Facebook,

500

700

, 75%

Facebook

²

F-

1.

¹ Nielsen Global Online Consumer Survey. <http://blog.nielsen.com/July2009>.

² The F-factor. <http://trendwatching.com/trends/ffactor/>.

5. F-

(, Flipboard),
Twitter

(m-commerce)

4

³

,2008, .192-193.

2010 . 3,4 . 8 m-

iPhone 2008 . eBay, mobile.ebay.com -

ocado.com

2009 . : iPhone Apple Android Google. -

2011 . Tesco -

2001 . QR Sainsbury's -

sainsburys.co.uk, -

15 . .⁴ -

) (QR -

, , , . . -

, -

Starbucks . QR Amazon, Ralph Lauren, -

, -

, -

, -

, : -

• , (, -

, , , , , -

);

⁴ ”.”, 2011, 10, . 36.

• ” ” ,
 ” ” . -
 QR -
 bricks-and-mortar , -
 - , -
 - . -
 - ” -
 - ” ; -
 • , -
 - : , -
 - , -
 , -
 . . -
 , -
 , NFC (Near Field
 Communication). , GoogleWallet
 PayPal, ,
 , ,
 . -
 , -
 . . -
 - -
 Sainsbury’s , -
 iPad, . -
 , -
 , -
 .

Frequency Identification)

(RFID – Radio

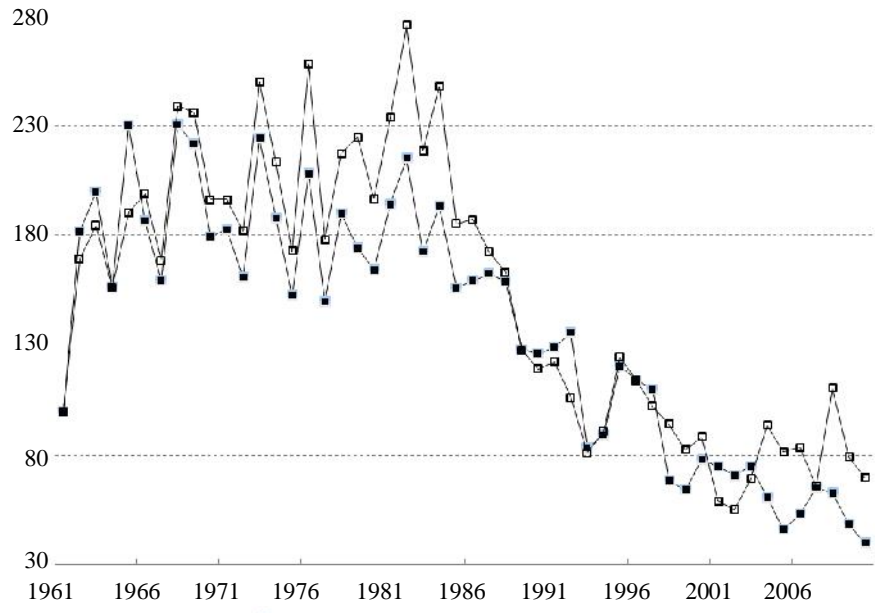
RFID

RFID
(reader),
(Savant)

(tag),
(EPC),
(PML). RFID

,
.
, RFID
,
,
,
90%
(Walmart, Carrefour, Home Depot, Metro, Tesco, RFID,
Kroger, Costco)
-
-
(Prada, Gap, Benetton, Levi's)
RFID
RFID
RFID
Apple, Singapore Airlines, IKEA, Four
Seasons

³ Vollrath, T. L. A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage, *Weltwirtschaftliches Archiv*, 130, 1991, 265-279.



. 1.

50-

60-

40%

70-

92%

1

	2007 .	2008 .	2009 .	2010 .
	355 459	363 539	272 601	218 387
.. .-	13 641	17 889	17 344	7 989
-	341 818	345 650	255 257	210 398
	21 204	5 891	8 701	11 811
-	376 663	369 430	281 302	230 198

:

2

1986-1990 .	0,856	0,818	0,654	0,771
1991-1995 .	0,712	0,634	0,538	0,624
1996-2000 .	0,684	0,508	0,471	0,547
2001-2005 .	0,625	0,523	0,496	0,545
2006-2010 .	0,561	0,543	0,518	0,540

:

3

1986-1990 .	2,4186	0,3148	1,3487
1991-1995 .	1,2295	0,8324	- 0,6762
1996-2000 .	1,1672	0,7655	- 0,7324
2001-2005 .	0,9824	0,5712	- 0,2714
2006-2010 .	1,2753	0,6673	- 0,3851

:

” ”.

2

4

(.3).

⁴ Popova, B. Possibilities for Improving the Usefulness of the Contemporary Bulgarian Agricultural Cooperatives. Enhancing the Capacities of Agricultural Systems and Producers. Proceedings of the Second Green Week Scientific Conference, 2008, pp. 195-201.

1.”
 .5, 2008, . 3-11.
2. Freebairn, J. Implications of Wages and Industrial Policies on Competitiveness of Agricultural Export Industries, paper presented at the AAESPF. Canberra, Australia, 1986.
3. Popova, B. Possibilities for Improving the Usefulness of the Contemporary Bulgarian Agricultural Cooperatives. Enhancing the Capacities of Agricultural Systems and Producers. Proceedings of the Second Green Week Scientific Conference, 2008, pp. 195-201.
4. Vollrath, T. L. A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage, *Weltwirtschaftliches Archiv*, 130, 1991, 265-279.

1998 .,

3

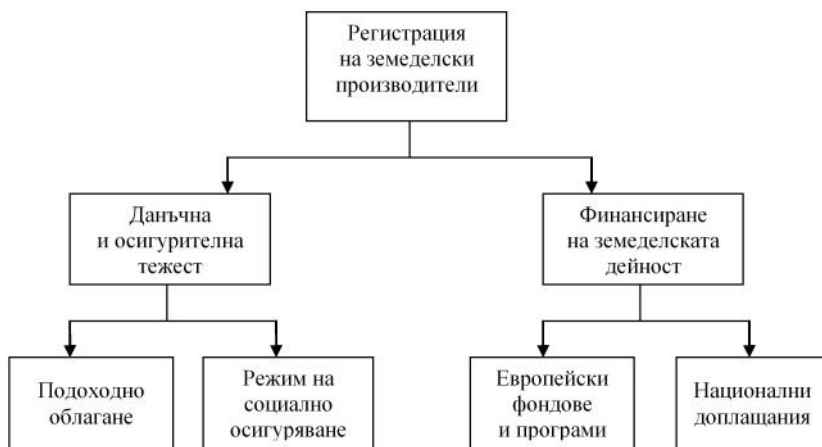
¹ .2, .8 25.01.2011 .

- 1.
- 2.
- 3.

2000.

40

(.1).



. 1.

	2,	.	-
	,	3	-
	,	,	-
	,	.	,
	,	,	-
	:	,	-
1.	,	60%	-
	,	,	-
2.	:	4.	-
	,	,	-
3.	,	,	-
	.	,	-
	,	,	-
5.	,	,	-
	,	,	-
	,	.	-
	,	,	-
	6,	,	-
	,	,	-
	,	,	-
	,	,	-
	,	,	-

2 , , .31 2011 ., 01.01.2011 .

3 .8, ., 2010, .21-27.

4 , , .29, .95 2009 ., 01.01.2010 .

5 , .29 , , .31 31.11.2011 .

6 , .
2011 .// , LXIV, 4-2011, .45

7
 -
 ,
 8
 ,
 ,
 9
 60%
 ,
 .
 2007-2013 .,
 15.12.2006 . .87,88 () 1857/2006
 -
 ,
 .
 .
 10
 , -
 -
 240 11
 ,
 420
 . (.8, .2).
 ,
 .
 -
 -

7
 25%
 , .29, .3.
 8
 , .
 ”- ,2011.
 9 , .189 , , .95 2009 ., 01.01.2010 .
 10 , .6, .7, , .99 2009.
 11 2012 ., .8, .1, .3.
 , .100 20.12.2011 .

1. 2013 . 2007-

2.

3.

1.

2.

3.

Wellness Tourism Worldwide

2020 ..

43%

¹ WHO, World Health organization, <http://www.who.int/en/> (10.08.2011).

5-6
80- 90- 20
well-being () fitness
)⁴

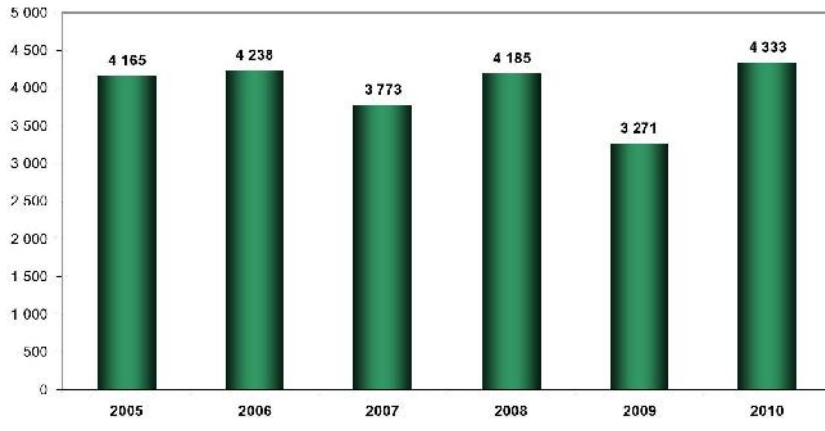
³ Mueller, H., E. Lanz Kaufmann (2001), Wellness Tourism: Market analysis of a special health tourism segment and implications for the hotel industry, *Journal of Vacation Marketing*, Vol. 7, N 1, . 5-17.
⁴ Knapp, G. *Das Wellness Buch*. G tersloh: Knapp Cosmetics. Lalonde, Marc, 1974: *A New Perspective on the Health of Canadians*. Ottawa: Department of National Health and Welfare., S., 2001, 32.

⁵ Lawrence, M, J. Bultjens. Destination Daylesford strategic tourism management plan 2008 to 2018. Southern Cross University, Australia: Australian Regional Tourism Research Centre, 2008, 74-85.

-
 . -
 ” . . ” - ,
 . .
 - -
 , -
 2006-2015 ¹ -
 : „
 ,
 -
 -
 „
 2007-2011 ² - :

()	
	- ; - ; - ; - ;
	- ; - ; - / ; - ; - ; - ; - ;

¹ <http://www.nug.bg/docs/lang/1/cat/5/index>
² <http://www.nug.bg/docs/lang/1/cat/5/index>



: , 4

. 1.

2005-2010 ., . . .

2010 .

643 . . . -

, 5 . . . ,
14,4 . . . , 1/

3
2015 . 7 . . . , 2020 . - 8,5

- , , -

, -

. -

(,, -

”) , -

5 , , , , -

⁴ (2011).

⁵ <http://www.mzh.government.bg/mzh/bg/Documents/AgrarenDoklad.aspx>

” . 7

, , -
 , , -
 , . -
 .
 . 2009 .
 -
 271 . , 2 260 . , 11% . 2010 .
 , 2 230 . , 30 .
 . - 2009 .
 ; , ; , -
 , ; : -
 - , , -
 ; ; ; ;
 ; - ; ; 200
 ; ;
 V 2011 . , -
 ” ” .
 .
 248 .
 :
 1. ;
 2. ;
 3. ;
 4. , ;
 ;

5. ;
6. ;
7. ;
8. ;
9. -

·
·

2 000 16 , -
, ,
,

e , 2011 . -
· , · · -
· -
-
· -
· , -
, -
· , 65% -
, -
-
, -
·
· · ” -
” , · · ” -
” ,
” ”

,

.

-

40%.

,

-

1996-2004 . 25%

0,9 . m³

-

2010

2011 . ,

,

-

,

-

-

,

-

,

-

,

-

,

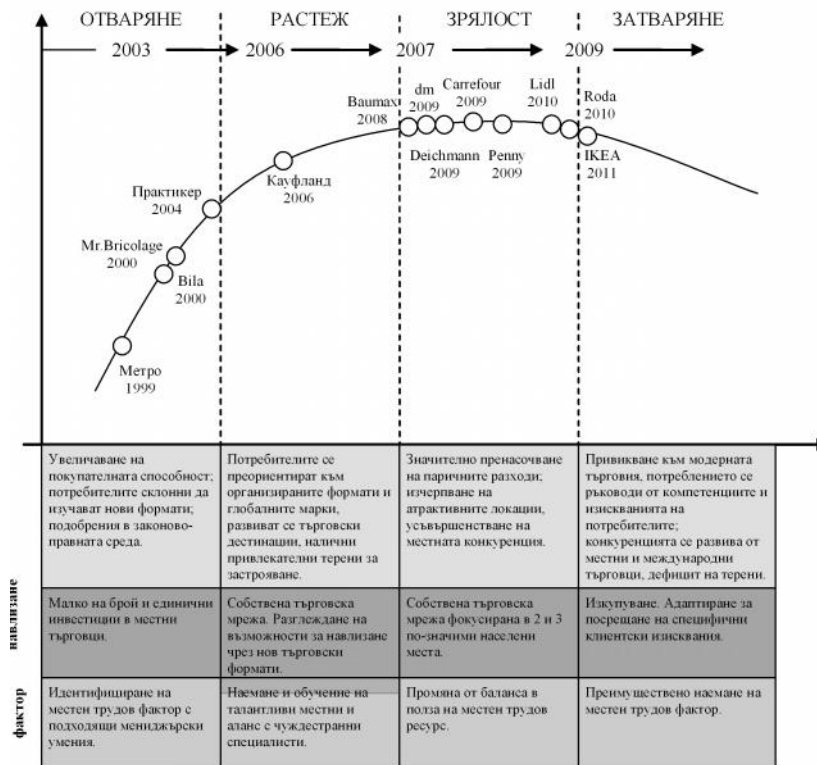
-

.

, , -
 , -
 : (1) , , (2) - -
 , -
 , (3) -
 , , -
 1989 ., , McKinsey & Company Information Consulting
 Saatchi & Saatchi -
 . ,
 DiBianca-Berkman CSC 1995 ., -
 , -
 , , , -
 , , , -
 , , (-
 , ,). -
 , -
 . , -
 , -
 , -
 , -
 , -

” ” ” ” . -
 - , -
 , -
 . -
 : , -
 IATA -
 , . -
 , -
 () -
 - , -
 , -
 , -
 , -
 . -
 , -
 , -
 , -
 , -
 , -
 , -
 , -
 , -

¹ Gielens, K.; L. M. Van de Gucht; J.-B. E. M. Steenkamp; M. G. Dekimpe. Dancing with a Giant: The Effect of Wal-Mart's Entry into the United Kingdom on the Performance of European Retailers *Journal of Marketing Research (JMR)*, October, 2008, Vol. 45 Issue 5, p. 531.



1.

GRDI⁶

⁶

analysis).

A. T. Kearney analysis (Figure 2: The GRDI window-of-opportunity : <<http://www.atkearney.com>> (27.12.2011).

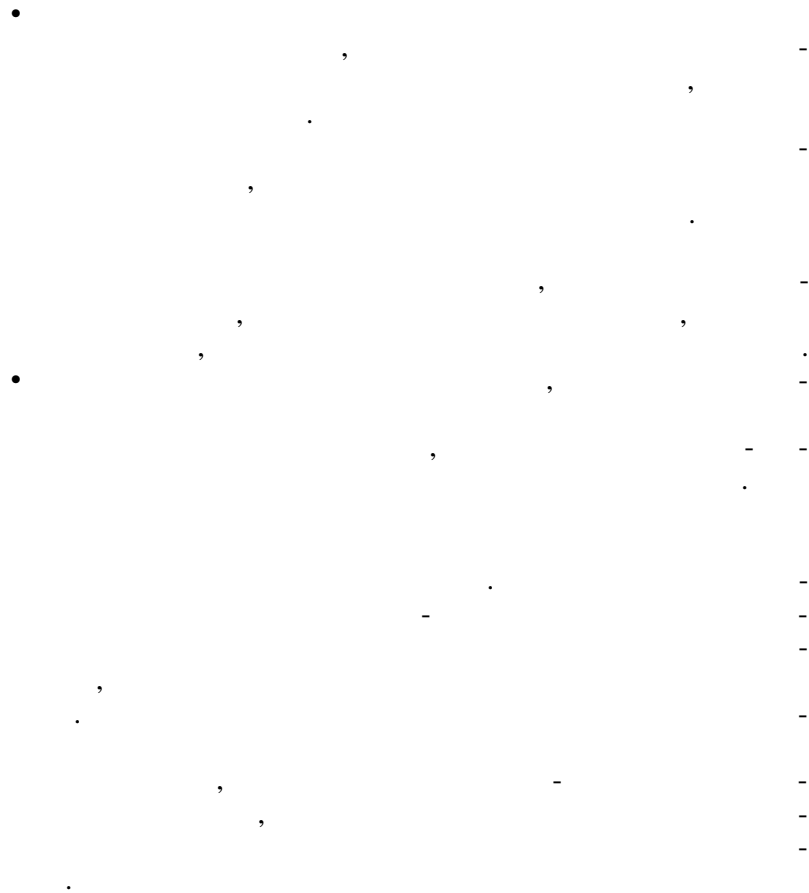
⁷ Fulop, C. The Changing Structure of Hungarian Retailing: Prospects for Foreign Retailers. *Journal of Marketing Management*; October, 1991, Vol. 7, Issue 4, p. 394.

**GRDI A. T. Kearney
2003-2011 .**

		()				” ”	
		25%	25%	30%	20%		
2003 ⁸	13	48	62	76	54	58	
2004 ⁹	13	59	38	70	67	71	
2005 ¹⁰	13	48	39	73	68	73	
2006 ¹¹	21	48	37	52	65	55	
2007 ¹²	12	62	32	42	68	63	
2008 ¹³	16	28	32	42	79	51	
2009 ¹⁴	21	44	41	48	54	47	
2010 ¹⁵	19	49,7	60,8	18,8	56,7	46,5	
2011 ¹⁶	30	45,1	56,2	4,9	50,2	39,1	
		0 = 100 =	0 = 100 =	0 = 100 =	0 = 100 =		

- ⁸ A. T. Kearney. The 2003 Global Retail Development Index. (Emerging Market Priorities for Food Retailers). Chicago. Illinois, 2003, . 2. : <<http://www.russianowfund.com/pdfs/ATkearney2003.pdf>> (28.12.2011).
- ⁹ A. T. Kearney. The 2004 Global Retail Development Index. Chicago. Illinois, 2004, . 2. : <http://www.atkearney.com/images/global/pdf/GRDI2004Monograph_s.pdf> (28.12.2011).
- ¹⁰ A. T. Kearney. The 2005 Global Retail Development Index. Chicago. (Emerging Market Priorities For Global Retailers). Illinois, 2005, . 2. : <http://www.atkearney.com/images/global/pdf/GRDI_2005.pdf> (28.12.2011).
- ¹¹ A. T. Kearney. The 2006 Global Retail Development Index. . , 2006, . 2.
- ¹² A. T. Kearney. The 2007 Global Retail Development Index. Chicago. (Growth Opportunities For Global Retailers). Illinois, 2007, . 2. : <http://www.atkearney.com/images/global/pdf/GRDI_2007.pdf> (28.12.2011).
- ¹³ A. T. Kearney. The 2008 Global Retail Development Index. (Emerging Opportunities For Global Retailers). Chicago. Illinois, 2008, . 2. : http://www.atkearney.com/images/global/pdf/GRDI_2008.pdf> (28.12.2011).
- ¹⁴ A.T . Kearney. The 2009 Global Retail Development Index. (Windows of Hope for Global Retailers). Chicago. Illinois, 2009, . 2. : <http://www.atkearney.com/images/global/pdf/2009_Global_Retail_Development_Index.pdf> (28.12.2011).
- ¹⁵ A. T. Kearney. The 2010 Global Retail Development Index. (Expanding Opportunities for Global Retailers). Chicago. Illinois, 2010, . 2. : <http://www.atkearney.com/images/global/pdf/2010_Global_Retail_Development_Index.pdf> (28.12.2011).
- ¹⁶ A. T. Kearney. The 2011 Global Retail Development Index. (Retail Global Expansion: A Portfolio of Opportunities). Chicago. Illinois, 2011, . back of cover. : <http://www.atkearney.com/images/global/pdf/Retail_Global_Expansion-GRDI_2011.pdf> (28.12.2011).

- , ,
- ,
- (2010 .
- ” ” ” ”).
- ” ” ” ”).
- , .
- , .
• - :
- , .
- .
• - :
- , .
- , .
• - :
- , .
- , .
• - :
- , .
• ” ” ” ”
- (,)
- , -
- , 2007 .



Dr. oec. , *Mg. math.* ,
Mg. chem.

-
- ¹ Q 2008. Nr. 1, . 101.
- ² Inovat vas darb bas pamatelementi. Rokasgr mata maziem un vid jiem uz mumiem. R ga: Latvijas Invest ciju un att st bas a ent ra, 2007, 10.-11. lpp.
- ³ Bo šakovs S. Inovat v s uz m jdarb bas finans šanas probl masLatvij un to risin jumi. Promocijas darba kopsavilkums Dr. oec. gr da ieg šanai. R ga: LU, 2005, 6.lpp.

(Farm Accountancy Data Network, FADN)

(1 1

⁴

⁵

SAPARD.⁶

⁷
(1)

28%

()

⁴

. 2005. Nr. 14, . 50-51.

⁵ Aggelopoulos, S., Pavludi A., Theocharopoulos A., Gazarou M. Financing Profile of Agricultural Investments: the Case of the Central Macedonia Region, Greece. *Economic Science for Rural Development*. 2008. Nr. 17, p. 21; O., .,

. Leibniz Institute of Agricultural Development in Central and Eastern Europe, Diskussionspaper Nr. 92, 2006, . 34, 36.

⁶ Reiljan, J., Tamm D. The Impact of Governmental Policy on the Competitiveness of the Estonian Agricultural Sector. *Economic Science for Rural Development*. 2007. Nr. 12, p. 130.

⁷ Keszthelyi, K., Németh P., Csaba P. Hungarian Agricultural Subsidies and Competitiveness on the Basis of FADN Database. *Stowarzyszenie Ekonomist w Rolnictwa i Agrobiznesu*. 2005. Nr. VII(6), p. 55.

14%. 2004
 2005
 ()
 ()
 47),
 -
 -
 I
 (2002-2010 ,)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	V
	27	26	14	12	20	15	14	16	12	33
	14	21	14	41	19	11	16	98	18	98
	35	22	9	56	27	28	28	36	22	44
	5	15	13	26	24	19	17	21	25	37
	7	24	6	24	12	8	7	17	18	53
	18	22	11	32	20	16	16	38	19	-

8 -
 , :
 (), (-
), -
 (, -
), ,
 ,
 , 9
 ,
 ,
 8 , 2002, . 125;
 , 2009, . 17;
 : - , 2003, . 118-119;
 - , 2000, . 159-161.
 9
 (.
). - , 2003, . 10.

(3 4).

3

1

(2002-2010 ., LVL)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	V ,%
	35	51	27	394	167	146	71	-26	-10	136
	7	20	58	121	60	80	56	-59	-26	157
	-6	61	53	53	69	47	92	-17	5	93
	8	9	33	75	58	108	87	4	10	91
	13	48	102	156	106	176	170	63	29	64
	11	38	55	160	92	111	95	-7	2	

1

2002 2010

(95 96 LVL),

1

(244 LVL,

315 LVL).

4

1

(2002 – 2010 ., LVL)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	V ,%
	64	128	77	821	636	359	206	-70	-27	125
	28	61	177	366	184	230	163	-169	-74	152
	-21	218	200	202	193	146	327	-60	16	95
	30	42	139	261	206	392	326	14	33	89
	58	147	267	549	387	490	583	223	134	61
	32	119	172	440	321	323	321	-12	16	

()

()

,

.

2002 2010

2009-2010

1. Aggelopoulos, S., Pavlouti A., Theocharopoulos A., Gazarou M. Financing Profile of Agricultural Investments: the Case of the Central Macedonia Region, Greece. *Economic Science for Rural Development*. 2008. Nr. 17, 21-28, lpp.
2. Bošakovs, S. Inovācija un uzņēmējdarbības finansānas problēmas Latvijā un to risinājumi. Promocijas darba kopsavilkums Dr. oec. gr. daļīgā analīzē. Rīga: LU, 2005.
3. Definitions, of variables used in FADN standard results (RI/CC 882 Rev. 8.1.). European Community Committee for Farm Accountancy Data Network, 2007, 32 p.
4. Inovācijas darbības pamatelementi. Rokasgrāmata māziem un vidējiem uzņēmumiem. Rīga: Latvijas Investīciju un attīstības aģentūra, 2007.
5. Keszthelyi K., Nemeth P., Csaba P. Hungarian Agricultural Subsidies and Competitiveness on the Basis of FADN Database. *Stowarzyszenie Ekonomistów Rolnictwa i Agrobiznesu*. 2005, Nr. VII(6), pp. 52-57.
6. Reiljan, J., Tamm D. The Impact of Governmental Policy on the Competitiveness of the Estonian Agricultural Sector. *Economic Science for Rural Development*. 2007, Nr. 12, pp. 125-135.
7. *Economic Science for Rural Development*, 2002.
8. *Economic Science for Rural Development*, 2008, Nr. 1, pp. 98 – 104.
9. *Economic Science for Rural Development*.
10. (*Economic Science for Rural Development*). – , 2003.
11. *Economic Science for Rural Development*, 2009.
12. Leibniz Institute of Agricultural Development in Central and Eastern Europe, *Diskussionpaper Nr. 92*, 2006.
13. *Economic Science for Rural Development*, 2003.
14. *Economic Science for Rural Development*, 2005, Nr. 14, pp. 50-64.
14. *Economic Science for Rural Development*, 2000.

1900 Planet Retail¹ 2011 . 2016 .
 2600 ,
 50:50%.

” 6 ” ” 2011 „ ”

„LCS” („Low Cost Service”)

10 000

¹ Planet Retail

211

. -
, -
, -
, -
700 -
, -
, -
, -

1

Outside Resource Using

² King, J., R. Woods. Leadership and Management in the Hospitality Industry. Educational Institute, 2006, p. 2.

IFOAM² 2009 . - -
- 18,5%, -
. ' -
868 . ' -
) - (- 104 -
() -
. , . -
, ' -
" "3. -
, ' -
. " " -
1.2 . -
, 23 000 4. -
" , 5. " -
- ; -
- ; -
, ' -
, ' -
; -
- , -
(,) -
- ; -
. -
, ' -

² FiBL and IFOAM. The World of Organic Agriculture: Statistics and Emerging Trends 2011.

³ www.urlaubambauernhof.at

⁴ Ministry of Economy and Labour. Austria. BMWA: Bericht ueber die Lage der Tourismus und Freizeitwirtschaft in Oesterreich 2005.

⁵ Yearbook of the Austrian Society for Agricultural Economics, 2005.

6
15
15
21 000
1982
„A Natuerlich Lungau“

⁶ Rural Tourism – An Overview, 2010, Government of Alberta, Canada.

1. FiBL and IFOAM. The World of Organic Agriculture: Statistics and Emerging Trends 2011.
2. Ministry of Economy and Labour. Austria. BMWA: Bericht ueber die Lage der Tourismus und Freizeitwirtschaft in Oesterreich 2005.
3. Pohl, Alehandra. The Future of Organic Farming in Europe: How do European Rural Development Programs support Organic Farming, IFOAM, 2009.
4. Rural Tourism – An Overview, 2010, Government of Alberta, Canada.
5. Yearbook of the Austrian Society of Agricultural Economics, 2005.
6. www.urlaubambauernhof.at

• • -
-
” ”
，
， -
-
， ” ” -
-
， - -
-
(- -
)， - -
， -
， -
，
() ， -
-
-
-
.

2007-2011 ， -
-
，

I

”
2007-2011”
2007 =100%

	2008	2009		2010		2011	
	%	%	%	%	%	%	%
(/1000)	118,6	111,3	93,9	118,6	106,5	147,6	124,4
6 , (/)	110,2	112,9	102,4	118,4	104,9	128,9	108,8
6-12 (/)	102,8	97,6	94,9	110,9	113,6	111,2	100,3
12-18 (/)	100,4	100,4	100	82,9	82,5	61,6	74,4
(/)	105,7	103,9	98,2	109,6	105,5	115,2	105,1
- (/)	97,6	97,6	100	94,1	96,4	107,1	113,8

2011

12 18

2

(1000 .)

	2007	2008	2009	2010	2011
	1,53	1,49	1,77	1,77	1,82

2011 -1,82, 1,82

3

(,)

	2007	2008	2009	2010	2011
	2,07	1,94	1,98	2,14	2,08
(6 - 12)	1,54	1,48	1,27	1,49	1,34
(12 - 18)	1,70	1,60	1,45	1,23	0,82
	0,87	0,86	0,77	0,83	0,78

(1,94 - 2,14).

6-18),

- , -

(12-18) 2011

1. , , . , . ”, 2000.
2. , , . , . , . , . , .
3. . , . ”, 2006.
 , . , 2007-2011.

. . . -
 -
 -
 . ,
 ,
 . ,
 ,
 -
 .
 ,
 :
 .
 ,
 ()
 ;
 ;
 ;
) (-
 . -
 ,
 .

2000-2010 . (.1)

2003-2008 .

2003 .

40%.

2).

90-

3 (

40%,

2001-2009 .,

2

3

1

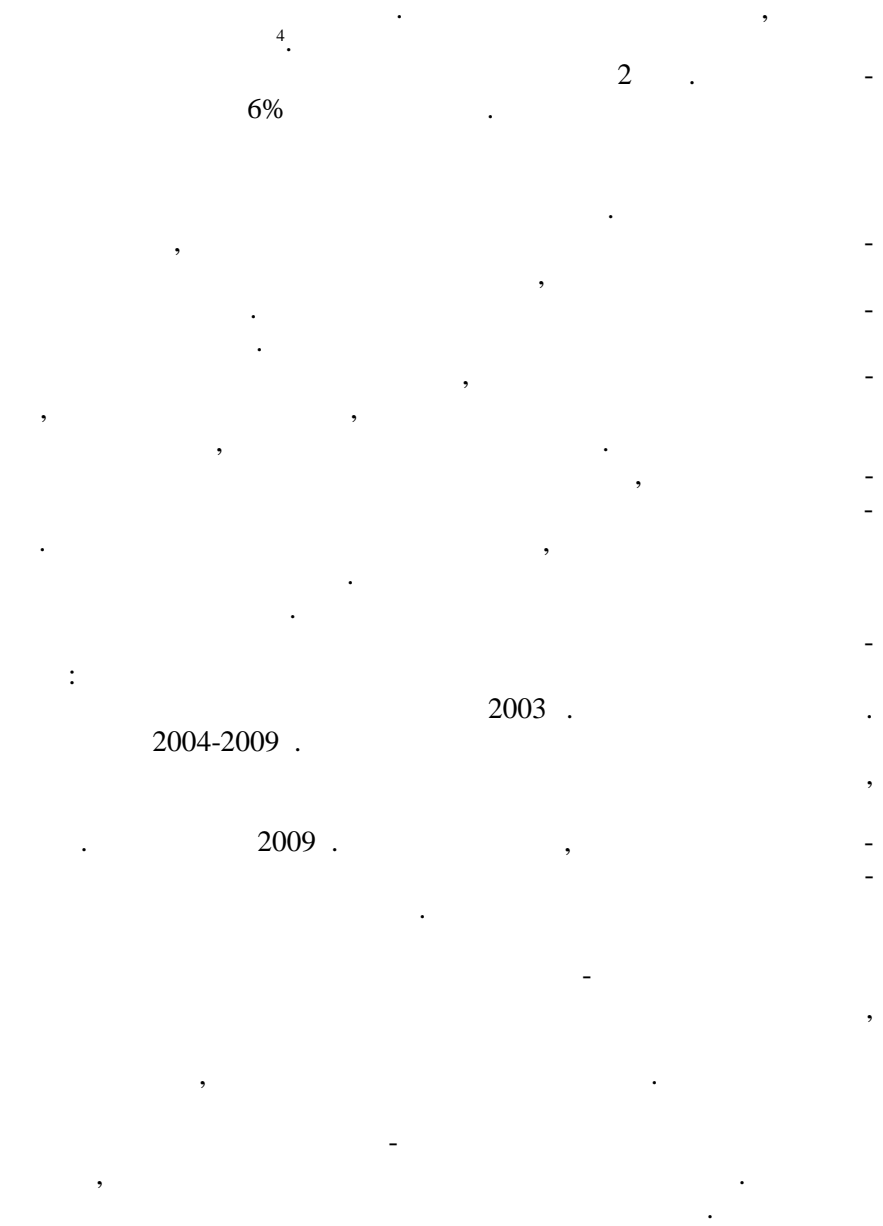
2000-2010 .

Показатели	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
1. Брой сделки	11 160	31 804	35 978	32 468	48 437	66 345	92 530	125 062	134 173	115 208	107 000
2. Продадена земя, ha	19 308	59 496	35 458	34 572	46 333	59 435	90 189	115 293	137 401	107 378	108 000
3. Средна цена, лв./ha	1 370	1 410	1 410	1 210	1 340	1 690	1 970	2 350	3 120	2 970	3 200

2

2001-2009 .

Показатели	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Брой арендни договори	120 214	106 836	146 936	264 726	138 427	146 352	179 854	154 510	151 392
2. Размер на земята, ha	280 883	243 156	332 884	562 870	337 595	375 115	374 097	327 954	318 417
3. Брой на собственниците на земята	н.д.	н.д.	224 632	363 481	178 742	202 747	214 351	166 510	179 321
4. Брой арендатори	н.д.	н.д.	2 672	8 858	4 774	5 162	5 882	7 470	8 879



⁴ www.investor.bg/

. http://

2007 ., -

-

,

.

-

**ECONOMIC GEOGRAPHY FACTORS
AS A PRECONDITION FOR TOURISM DEVELOPMENT
IN REPUBLIC OF CROATIA**

M. Ed Maja Marinovi
Faculty of Education, Zagreb, Croatia

1. Introduction

Economic geography is the science of the geographical location of productive forces and some outbuildings, if that site is determined by the laws of social development, and not the laws of nature. The economic geography studies the spatial requirements of development and production scheduling systems, which partly depends on human will, and partly by the location and distribution of natural resources of each country.

Economic geography is the study of widely varying economic conditions, particularly in the area of tourism activities. The economy and tourism of each geographical area can be affected by climate, geology, and sociopolitical factors. Geology affects the availability of resources, transportation costs and decisions about land use and climate on the availability of natural resources (particularly agricultural and forest products), and working conditions and productivity. Social, economic and political institutions, which are unique to each region, can also have an effect on economic decisions. Review of tourism geography factors will be presented in the paper.

**2. Economic and geographical factors in tourism
and proposed research models**

When determining target markets and developing marketing mix, experts in the tourism industry must face the many variables that are found in the marketing environment. The environment analysis is the process of evaluation and interpretation of information obtained by research environment. In parallel with the development of world tourism, the number of dominant factors in the marketing environment is increasing. External environment of any industry, especially tourism, has a multitude of interdependent factors which are necessary in a certain way to identify and classify.

One of the simplest and most used tool for analyzing the economic environment is the PEST analysis of the subject. It considers the political, economic, social and technological factors that may affect the economic entity.¹ This analysis is acceptable for the entities in industries that are less susceptible to market changes. However, since tourism is by its nature a complex and dynamic, the above analysis has many shortcomings in the marketing planning in tourism, so they developed a new method of analysis tools and environments.

One on the most used and most comprehensive research model macroenvironment in tourism is SCEPTICAL analysis, which takes into account the environmental impacts due to:²

- social factors
- cultural factors
- economic factors
- physical and geographic factors
- technical factors
- international factors
- communication and infrastructural factors
- administrative and institutional factors
- legal and political factors

In parallel with the development of European and Croatian tourism, the number of dominant factors in the environment will expand in the future. The specific relationship between tourism and its economic geography means that it takes a lot to think more carefully and understand the impact of the environment than it is in other sectors of the economy.³

3. Demography as a factor in the development of tourism

As one of the key factors of social environment in the tourism highlights is demographics. Demography is the scientific discipline that studies the statistical population. ⁴According to recent research, the U.S. Census Bureau, now the world's 7,000,601,000 people alive. World population has increased from 3 billion (1959) to 7 billion (2012). Prediction of the same sources say

¹ Peng, G. C., Nunes, M. B.: Using PEST Analysis as a Tool for Refining and Focusing Contexts for Information Systems Research, 6th European Conference on Research Methodology for Business and Management Studies, Lisbon, Portugal, July 9-10, 2007, pp. 229-236.

² Moutinho, L.: Strategic Management in Tourism, Masmedia, Zagreb, 2005, p. 35.-36.

³ Andric, B.: The Influence of Internet on Marketing Strategies in Hospitality, Economic faculty Osijek, 2011, p . 25-27.

⁴ Klai B.: Dictionary, Zora, Zagreb, 1972, p. 269.

that the world population in 2043 will reach the amount to about 9 billion people. In other words, the world population indicates „explosive” growth.⁵ These facts impose the necessity of studying the population in the context of tourism. Trends show a stagnation of growth in population and its aging, especially in North America and Europe. In parallel with the stagnation of growth in developed countries, there is rapid population growth and increasing number of younger people in developing countries, which certainly has implications for tourism, because the assumption is that most buyers of tourism products and services, acts of active and young people.

The next factor is the demographic phenomenon of migration surrounding the world’s population. Migration as a concept involves moving people from one administrative unit to another and includes a permanent change of residence. In the case of tourism there is a trend of increasing opportunities for travel due to lower prices of holiday packages. Migrations are present and the sense of global urbanization phenomenon, and is generally anticipated that the in 2030 about 60% of the world’s population will live in cities, A large influx of people in cities can lead to a drop in travel demand due to traffic congestion, the appearance of crime, poverty, disease, and the like. On the other hand leads to depopulation of the countryside, so some countries are trying to develop rural tourism with the aim of returning population and employment in rural areas.

4. Tourism geography classification of Croatian territory

The term „Croatian tourist hospitality” means all activities of domestic and foreign visitors on Croatian territory (inbound tourism) and, in addition to this, activities of Croatian citizens abroad (outbound tourism), thereby focusing primarily on specific qualitative and quantitative effects of the Croatian economy. Croatia has a realistic possibility to join the circle of tourism developed countries, but in order to achieve this goal must be to form an appropriate development and tourism policy, which should be long term and strategically designed. Croatian tourist market is determined by touristic geography factors, so it is possible to define main tourist regions. The Croatian tourist area can be divided into three macro-regional geographic areas:⁶

- Adriatic coastal region of the macro area of 17 850 km² or 31.6% of Croatian territory, which has about 30.6% of the population;

⁵ <http://www.census.gov/ipc/www/idb/worldpopinfo.php>, 26.01.2012.

⁶ Bilen, M.: Fundamentals of turistic geography, Economic faculty Zagreb, Zagreb, 1996, p. 91.

- The mountainous tourist macro-region consisting of 7913 km² or 14% of Croatian territory, with about 3% of the population;
- Pannonian region, macro-tourist area of 30 776 km², or 54.4% of the territory, which has about 3.17 million people or 66.4% of the total Croatian population.



Figure 1. Tourist regions in Croatia

Other authors define four regions as it is shown on the picture above. The most important tourist regional unit is a coast area along the Adriatic Sea, where is located the largest number of tourist destinations. At this point is concentrated and the largest number of accommodation facilities.

Adoption of the spatial plan for Croatian tourism is going to target Croatian tourism staff. The obvious problems that occur are related to the fuzzy control strategy for tourist geographic areas in Croatia:⁷

- an insufficient and inappropriate system of spatial planning;
- lack of long-term tourist master planning and defining zones for tourism development;
- the lack of an integrated development / project management in the

⁷ Pirija, D.: Hospitality standards, High School for Tourism, Šibenik, 2003, p. 72.

- localities under the control of local governments;
- „illegal construction”;
- misuse of any of the public, including the maritime domain.

Tourism master plans must provide input to regional planning, especially for the determination of tourism development zones and their carrying capacity and density of development of certain desirable tourist microlocation. Spatial Plan of Croatian Tourism Development provides guidelines for the development of spatial plans at the micro locations.⁸ On the basis of specific natural and cultural characteristics of individual regions and localities should determine the type of tourism that will optimally utilize the available resources and conditions for construction that is possible and acceptable with respect to the key features of the region.

5. Proposal for economic geography model for tourism development in Croatia

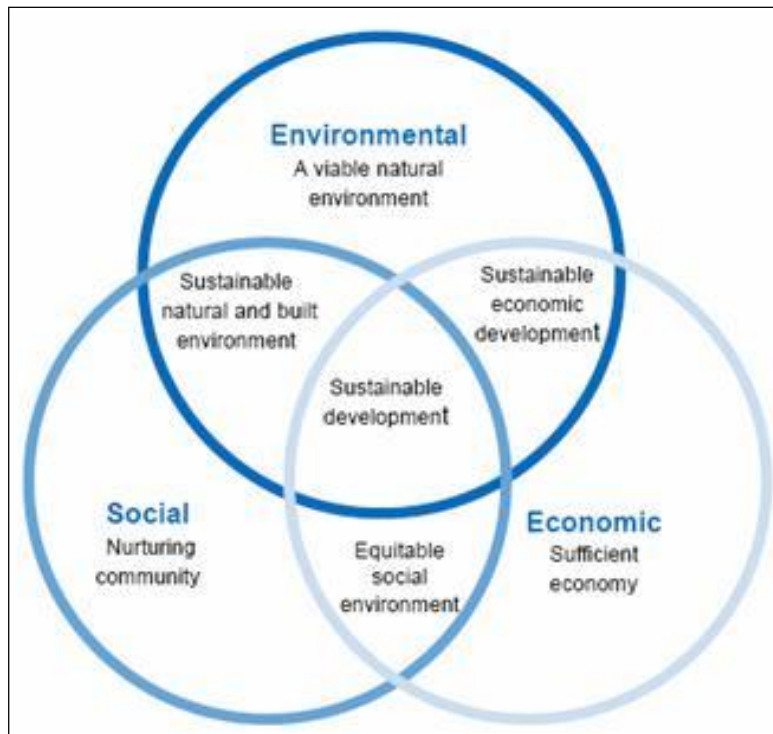
In order to prevent negative phenomena in tourist geography, there is initiative of series of projects organized by Croatian government institutions or associations of citizens with the aim of spreading the ideas of sustainable tourism in harmony with the environment. Applied to the sustainable development of tourism and hospitality, special emphasis should be placed on the role that should be given to sustainable building policies, and to reduce negative impacts on the environment.⁹ Hotels designed and constructed according to the principles of sustainable development, during the operation much more efficient land use, energy, water and materials maintained in relation to the hotels built in the classical approach. According to these facts, before the introduction of sustainable environmental concepts in hotel industry, it is necessary to make the education of all market participants on aspects, importance and application of ecological principles in tourism. Such a concept of hospitality seeks an optimal economic effect, with minimal use of the environment. Compliance with environmental standards and sustainability are increasingly important becoming trends on which we must plan the future of tourism in Croatia.

Sustainability, as a model for development, establishes the need to satisfy the requirements of today's society without making it impossible for future generations to satisfy their own. Development of any kind of tourism

⁸ Kusen, E.: Tourism and classification of tourist areas, *Area magazine*, Vol. 9, No. 1, 2002, p. 2.

⁹ Tepsic, Z.: Mediterranean eko destination: from theory to practice, *Acta Turistica Nova*, Vol. 2, No. 2, 2008, p. 236.

in Croatia cannot be achieved by the unrestrained exploitation of its resources (natural, cultural, social) to the point of eradicating or destroying them, but rather, should function to maintain, and improve upon, current conditions today for tomorrow's future. For the tourism industry in Croatia specifically, sustainability tourism consists of three main economic geography factors: environmental, social and economic.



Picture 2. Tourism development model

Environmental and geographic factors refer to the impact of the hotel property itself on surrounding natural areas. Social factors refer directly to community development and engagement, exploring how we can improve the living conditions, infrastructure and operations of the communities in which our properties and employees reside. Economic factors assure that the operation remains viable and successful, proving that sustainability can, and should, be a reality for all tourism subjects.

6. Conclusion

The importance of researching tourism and hospitality infrastructure as an important base for tourism development is based on the prediction that the world's social and economic conditions result in a large increase in tourism over the next twenty years, despite the uncertain conditions in some parts of the world. In parallel with the development of world tourism, the number of dominant factors in the geographic environment will increase.

7. Literature

1. Andrić, B.: The Influence of Internet on Marketing Strategies in Hospitality, Economic faculty Osijek, 2011, p. 25-27.
2. Bilen, M.: Fundamentals of turistic geography, Economic faculty Zagreb, Zagreb, 1996, p.91.
3. Klaić, B.: Dictionary, Zora, Zagreb, 1972, p. 269.
4. Kusen, E.: Tourism and classification of tourist areas, Area magazine, Vol. 9, No. 1, 2002, p. 2.
5. Moutinho, L.: Strategic Management in Tourism, Masmedia, Zagreb, 2005, p. 35-36.
6. Peng, G. C., Nunes, M.B.:Using PEST Analysis as a Tool for Refining and Focusing Contexts for Information Systems Research, 6th European Conference on Research Methodology for Business and Management Studies, Lisbon, Portugal, July 9-10, 2007, pp. 229-236.
7. Pirija, D.:Hospitality standards, High School for Tourism, Šibenik, 2003, p. 72.
8. Tepsic, Z.: Mediterranean eko destination:from theory to practice, Acta Turistica Nova, Vol. 2, No. 2, 2008, p. 236.
9. <http://www.census.gov/ipc/www/idb/worldpopinfo.php>, 26.01.2012.

		(/)	(.)
2004	409656	19,53	8000
2005	450000	24,94	11221
2006	671674	15,18	10199
2007	718822	8,54	6139
2008	652587	17,43	11377
2009	650000	14,66	9529
2010	613262	17,28	10595

:
 .
 -
 , -
 , -
 . -
 , -
 . -
 10% -
 -
 2008 ., -
 . -
 . -
 10%. -
 , 65%
 1.
 1
 53-71
 - , LIII, 2008, .

2007	241	3814	2312	6139	62%
2008	854	3362	2584	11377	77%
2009	202	6116	2448	9529	74%
2010	231	6583	2244	10595	79%

:
 .
 -
 ,
 -
 , :
 , -
 , -
 ,
 .
 10%).
 -
 (10) 15%
 ,
 5%.
 :
 ,
 .
 -

3.

, - - , -
 .
 10 , 5 ,
 .
 -
 -

3

(.)

	332	4493	9568
	24242	4503	15149
	89019	23587	19758
	2538	555	15429
	1059	20433	18942
	13275	3709	10374
	5095	719	13796
	418	8400	19391
	15224	14387	31838
	29999	1432	7225

:
 .
 -
 -
 .
 -
 -

2006 ” . ” , 2011-2013 . -
 , -
 , -
 . -
 ” . -
 , -
 . -
 - -
 . -
 . -
 , 2. 142 -
 , -
 , . -
 , -
 ” ” -
 ” . -
 , -
 . -

² , .

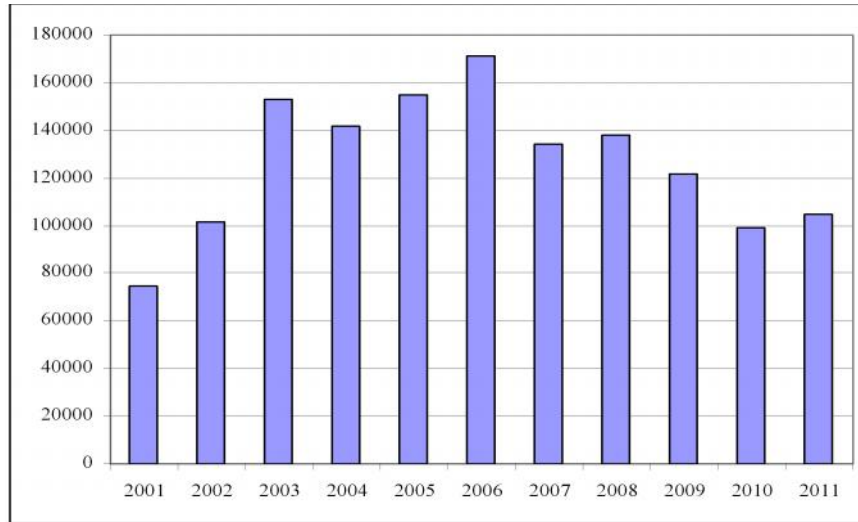
”, .4, 2009, .58-63. ” ”

: , , -
 , , -
 , , -
 , , -
 .
 1. , . : , -
 - , LIII, 2008, . 53-71.
 2. , . -
 . ” , .4,
 2009, . 58-63.

2000 .

2001-2011

1.



:

1.

2001-2011

(. .)

1

2006 .	121 580	2009 .	99 282
2010 .	2011 .		
	104 974		
		- 61,3%	
		4 843	
			33
95%		5%	
-	'2011	118 847	

2006 . - 2007 . 41 500 . . (23,1%
). 2010 -
 19 440 . . (16,4%), 2011 . -
 13 867 . . (11,6%). -

2001-2011 .

1.

I

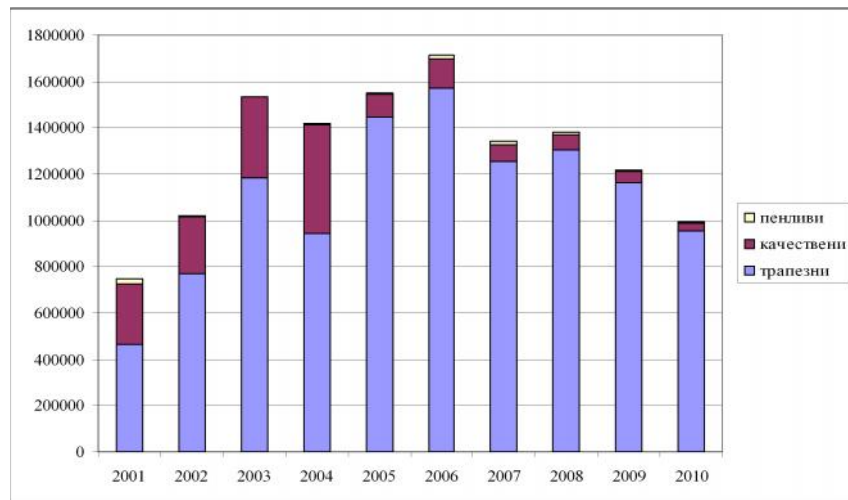
2001-2011 .(. .)

2001	32872	13714	17189	8860	361	1897	51959	22936
2002	39741	37214	16440	8193	92	113	56296	45500
2003	63454	54672	25704	9206	64	230	89223	64108
2004	53942	40390	29687	17091	420	213	84050	57696
2005	83957	60414	7621	2421	386	12	91966	62880
2006	90235	66878	9152	3545	353	1040	99741	71463
2007	64542	60759	5700	1512	1040	399	71283	62670
2008	67572	62550	5075	1483	838	372	73486	64406
2009	65898	50444	3857	667	458	254	70213	51366
2010	51150	44561	2708	339	362	159	54221	45060
2011	58801	43146	1995	396	452	189	61248	43731

52-55% , -45-48%.

2011 . -
 61 . ., 17,3% 2001 . 2006 -

45,5%. 2011 .
 2006 . 61,4% (38,6%).
 2011 .
 43,7 . „ 2001 .
 2006 .
 , 2010 . 2006 .
 36,6%. 2011 .
 2006 . 61,2% (38,8%).
 ,
 .
 . 2.



2001-2011 .
 2001 .
 34,8% ,
 2391 . .- 2,3% . 2011 .
 ,
 ().
 399

2001 . 57,2%

947 . .). , , 97,1% (101 , -

2001 . 3% , 641 . . (0,6%) .

40% , 60% , -

2. -

” ” , -

2010 . ” ” 56,7 . . -

2006 ., - 26,8 . (32,1%). -

(2,7%). , 1,6 .

2006-2010 ., . , 2.

2

2006-2010 . (.)

	2006	2007	2008	2009	2010
	83 461	108 987	85 353	58 285	56 710
	75 653	86 143	74 153	50 030	47 666
	7 809	22 844	11 200	8 255	9 043
	67 844	63 300	62 954	41 774	38 623

” ” .

2006 . - 29,2

43.1%, 2009 .- 3,2 . 7,5%.

2008 ,

² Fact Sheet.
2007, . 17

	2010 .	8,2	.	9	.	.
			0,05%			
2009 .	2006 .	4,1	.	33,6%,		
		1,2	.	15,8%.		
2009 .	2,8	.	51,7%,			
	788	.	9,5%.			
		2006 .	-	74,5%.		
2008 .	-	27,8%.	2010 .	-		
96%		2010 .	,	,		-
	2010 .	50,3	.	47,7	.	.
		0,31%,	0,43%	2009 .	-	
	2006 .			60,5	.	.
2,2	,			28	.	
37%.		2009 .	3,1	5,9%,		
		3,1	.	5,9%.		
	2009 .-	1,2%.	62%	2006 .	-	
				2010 .	38,8%,	-
	2010 .	,	,	,		
					95%	-
	2009 .	64%				-
						2007
		19,3	.	13,4%,		
		-	13,5	.		
		82,3	.		2005 .	
	4,5	.	5,2%.	2008 .	-	
12,6	.	13,2%.				
		(10 /)	,			-
						-
2005 .	-	4,4	.	8,3%.	2008 .	-
	-	11,5	.	19,2%.		
		2005 .	-	15,8	.	
7,7	.	2008 .	1,4	37,6%.		-
10,1	.		11,4	.	2005 .	-

95 . 0,3%. 2008 . 648 .
 1,9%.
 2005 , - 2,5 . 3,8
 2008 .- 665 . . 42,3%. -
 2.4 . . 2005 .. 2008
 .- 16 . . 2005 . -
 75 . ., 2008 .- 384 . .

3

2009 . , :
 ;
 ;
 3
 „ ”.
 3

„ ” **2005-2009** .

	2005	2006	2007	2008	2009
1	2,293	2,647	1,476	1,764	2,191
2	-25,8	-14,4	-3,9	-14,1	-17,4
3	(%)				
	-10,69	-5,00	-1,06	-3,56	-5,65
	-16,78	-8,37	-1,23	-4,92	-7,65
	-7,31	-3,16	-0,83	-2,79	-3,49
4					
()					
	1,43	1,38	1,65	1,36	1,55
	0,77	0,69	0,77	0,56	0,58
	0,04	0,05	0,05	0,04	0,03

2010.

3

59

2011, <http://sfb.bia-bg.com>

2009 . 744,6 . . 2005 .
 14, - 217,8 .
 41,3% - . 30,5% .
 2005 . 73,1 . 47,5%.
 31 2009 . -
 497 . , 2005 . 144,4
 . 41%.
 2009 . 17,4 . . -
 2005 . - 8,5 . 32,8%. 2008
 . 3,3 . 23,3%. 2007 .
 - -3,0 . . -
 2005 . 100 . - 47,2%, -
 -2,2 , -2,1 . -
 1 . 2009 . :
 : 2048 . ; - : 1822
 . . 1 . : - -4179 .
 ; - : -3535 . ;
 - : -2705 . ; 2002 - ():-
 2019 . ; - ():-1854 . ;
 . ; - :-1491 . ; - :-1383
 . ; - :-1176 . .
 2005 . 7,8%.
 - 24,5%, - 21,3%.
 2005 .
 ” ” -
 - , - , -
 - - 20 . .
 2009. , - , -
 20 , - , -
 . , -
 . -
 :

• - , -
; -

• , (-
-

•) ; , -
” ” -
-

• ; -
-
-
-
-
-
-

• , , -
-
-
-
-
-
-

1. • , -
-

• -
-
-
-
-
-
-

2. ”

- , , -
- , -
- -

” , .

• •

” • • ” —

” , • •

.

”

-

.

,

➤

,

:

.

➤

,

;

,

,

➤

;

-

➤

-

-

➤

;

-

;

-

.

-

,

-

,

-

,

-

.

-

,

-

.

:

)	:	
➤	178/2002	-
	,	-
	.	-
➤	852/2004	-
➤	853/2004	-
	,	-
	.	-
	, . . .	-
	,	-
	,	-
	,	-
➤	854/2004	-
	,	-
➤	() 471/2011	-
➤	() 882/2004	-
	,	-
	.	-
)	:	-
	,	-
	.	-
	,	-
➤	4/2008	-
➤	.	-
	,	-
	.	-

✓ - 16 . . . ; ' (')
, ;
, -
- . -
- .

- ,
 .
 -
 ,
 -
 -
 .
 ,
 ,
 ,
 .
 - ().
 (),
 ,
 ,
 - ,
 -
 -
 .¹
 ,
 - ()
)
 ,
 - ,
 -
 .²
 (),
 -
 -
 ,
 ” ,
 ”³

¹ . . . ,2009, 12.

² . . . ”, .,2004, 79.

³ . . . : ,2,2010.

， ，)。 ， (， -
， ， ， ， -
” ， ， ， ， -
。

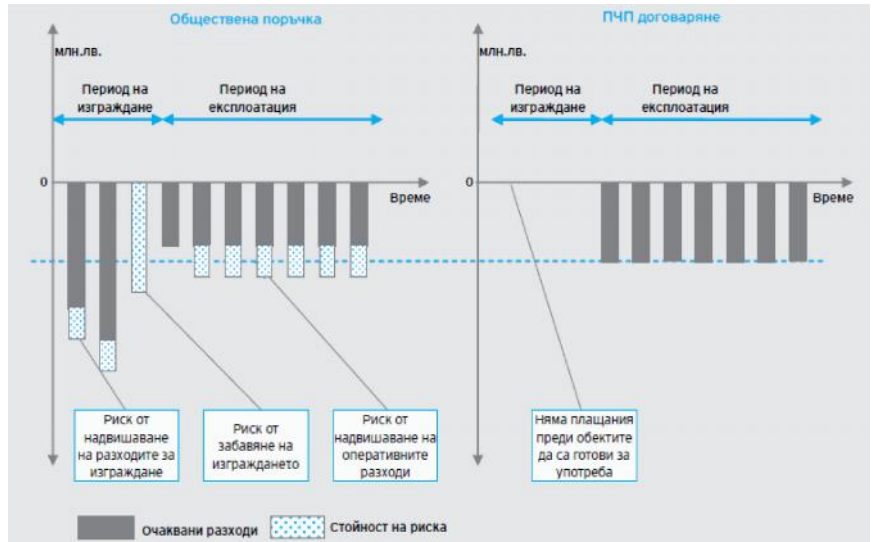
1.

■ ， ， ， ， -
· — ， ， ， ， -
■ ， ， ， ， -
， ， ， ， -
■ ， ， ， ， -
， ， ， ， -
· ， ， ， ， -
， ， ， ， -
4)， (， -
； (， -
·)； (， -

⁴ ， ， ， ， -

• (); -
• (, -);
• ;
• ;
• ;
• ;
• - ;
• - ,
- , - -
-
• ; -
• , -
• , -
- .
• .
• , , -
• , -
• .
• , , -
• .5
•
:

5 -



:

1

. 2009, . 10.

6

. 2009, . 10.

• . - -
 . - -
 - ,
 • . - -
 , - -
 , - -
 , - -
 • - -
 . - -
 , - -
 - , - -
 - - -
 , - -
 • - -
 - - -
 , - -
 , - -
 , - -
 . - -
 , - -
 , - -
 - - -

⁷ <http://www.hitrino.org>

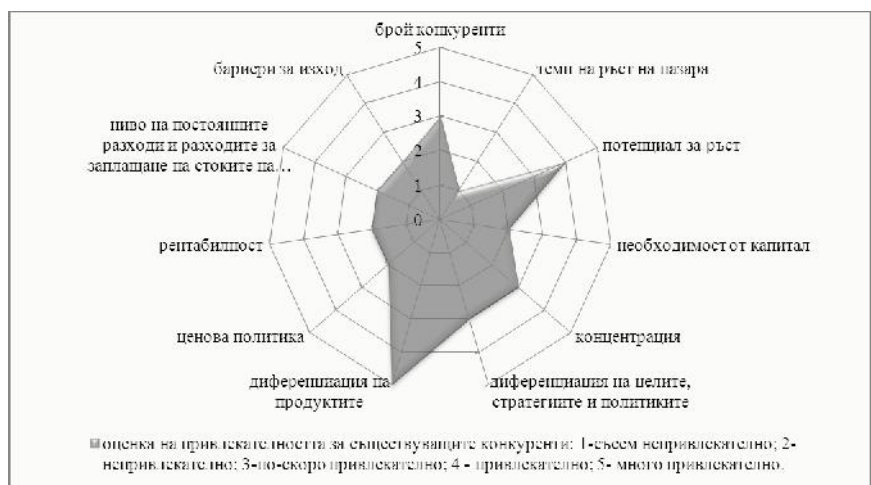
· , -
· , -
, , -
- ,
· , , 8 ,
, ,
·
:
• ,
, ,
” ”
, ,
;
• ,
,
· ,
,
,
·

8 -
,
9

18.02.2009 40-

(),

, 1, - , ,
 , . - ,
 20 , 30
 , ()
 , .
 ,
 . -
 , -
 . -
 2010 2009-
 , . -
 . -
 , -
 . -
 , -
 , 2 (-
 ,), . -
 , -
 - , -
 . -
 , -
 . -
 1 , : ,2000.



1.

1. 2010 22 2 , -

, , , -

2. 2010 3 282691 2002-2008 -

, 2009-2010 -

52,54 2008 , 2009 2010 -

- -26,46 , -

3. - -

-0,03 , 4, -

), (331 1000 -

2010 5, 16 20 20 -

56,26

² <http://www.speed-press.com/?go=stat> - SPEED PRESS,

³ <http://www.speed-press.com/?go=stat> - SPEED PRESS,

⁴ http://www.acea.be/images/uploads/files/20110927_ER_1105_2011_I_Q4.pdf - ACEA: EU Economic Report, July 2011.

⁵ <http://eea.government.bg/bg/nsmos/waste/reports/mps-09r.pdf> -

4.	-	2010	40 804 000	,
				-
				9 22
	2	(	5)	,
				-
				-
				19%,
				-
				-
5.				-
				-
				-
				-
				-
				-
				-
	(943,697),			-
				-
				-
				-
5		(concentration ratio – CR)		60
	2010	,	2009	,
		5		.
	2010	-4,26%,	2009	- -3,25
				-
				-
		2010	„	„
				Dacia,

7.	52						
8.	13,5	2010	9,1	2009			
9.	1,4%	2010	1,54%	2009	1,5	1,95%	

⁶ <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/921&format=HTML&aged=1&language=BG&guiLanguage=en>

,
-
-
, - .

(2007-2011)

–

2007 , , -

10973 – 2000 - 100 - 2010 ., !.

65% 2011 . 924 002

2011 ., 690 3796

458.09 . . . 2007/2011 . -

– 20%, . 15 25% (– 15%, – 25%).

); (, -

(, ,

¹ <http://www.nsi.bg/otrasal-eventbg.php?n=1222&otr=4>

), -
 (, , -
).
 2, 21

I

2

		()	() -EUR ()	()	()	
	100%	30	9.55	150 000	65	
SGEB	80%	30	8.96	/ .	65	
	80%	30	9.96	/	/	
	50% () 60% ()	30	11.68	50 000	65	
	75% () 85% ()	30	9.83	250 000	65	
	80%	30	8.57	/	65	„ ”
	80%	30	9.84	100 000	/	36
-	80%	10	15.06	100 000	65	„ - ” 2 .
	90% () 60% () 50% ()	35	8.35	-	70	„ ”
	80%	35	8.94	250 000	70	„ ” +
	80%	30	14.53	-	65	„ ”
	85%	35	9.42	500 000	70	„ ” +

2 :

	80%	10	9.09	150 000	65	„	”
	80%	30	10.07	-	/	„	-
	85%	30	9.95	200 000	70		+
	75%	35.	8.25	200 000	50	„	”
	70%	25	12.5	100 000	65	-	
	80%	10	12.34	100 000	/	-	
	75%	30	9.48	150 000	60	„	”
	80%	30	8.99	250 000	/	„	”

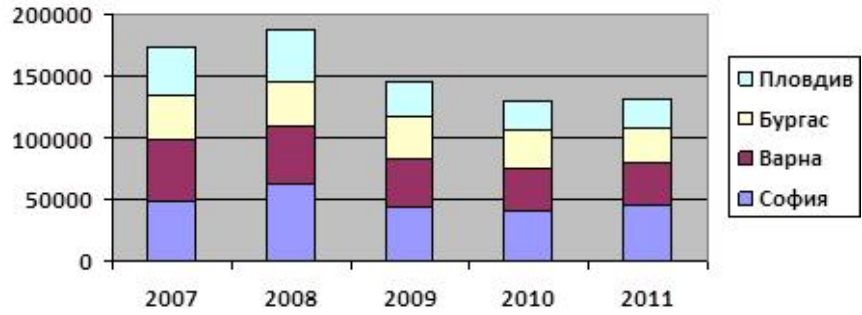
-
-
-
1 000 000 „
60 000 000 .
2

(2007-2011)³

	2007 .	2008 .	2009 .	2010 .
	2 698 093	3 149 843	3 209 731	3 979 775
(.)	37 434 000	49 716 000	52 452 000	57 524 000
	1 622 797	1 806 694	1 787 803	2 039 586
.. :	1 540 666	1 695 413	1 686 395	1 931 099
-	79 438	98 237	90 122	97 299
-	2 693	3 990	2 576	2 799
-				

-
36 773 , -
2010 . - - 33 740 . -
4000
1000 -

³ : <http://www.bnb.bg/ResearchAndPublications/PubPeriodical/PubEconomicReview/index.htm>

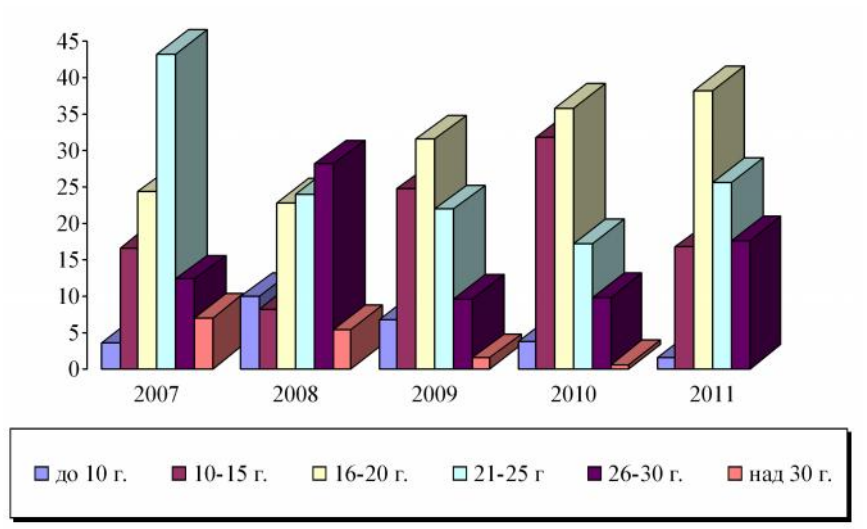


1.

()⁴

2008 . 26 30 - 28%,
 10%
 26 30 17.36%
 16 20 -
 2011 . 38.22% , 14%
 2007 .

⁴ : <http://creditcenter.bg/2012/01/23/%d0%b3%d0%be%d0%b4%d0%b8%d1%88%d0%b5%d0%bd%d0%b0%d0%bd%d0%b0%bb%d0%b8%d0%b7%d0%bd%d0%b0%d0%ba%d1%80%d0%b5%d0%b4%d0%b8%d1%82%d0%bd%d0%b8%d1%8f%d0%bf%d0%b0%d0%b7%d0%b0%d1%80%d0%b7%d0%b0-2011/>

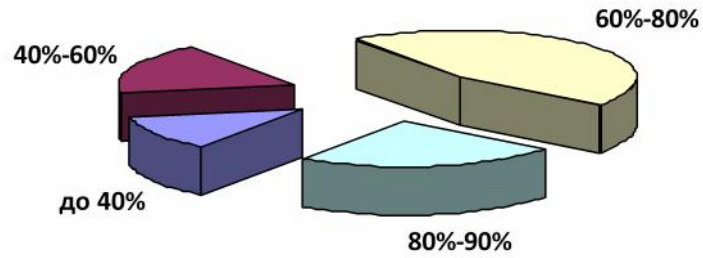


2.

5

Year	Category	Value
2011	до 10 г.	36%
2011	10-15 г.	1%
2011	16-20 г.	47.44%
2011	21-25 г.	70%
2011	26-30 г.	9%
2011	над 30 г.	10
2011	до 10 г.	8%
2011	10-15 г.	16,

⁵ : <http://creditcenter.bg/2012/01/23/>
 %d0%b3%d0%be%d0%b4%d0%b8%d1%88%d0%b5%bd%d0%b0%bd%d0%bb%d0%b8%d0%b7%bd%d0%b0%ba%d1%80%d0%b5%d0%b4%d0%b8%d1%82%bd%d0%b8%d1%8f-%d0%bf%d0%b0%b7%b0%d1%80-%d0%b7%b0-2011/



4.

(2011)⁶

-

-

-

-

7 10

-

-

-

-

2012

-

-

-

1. , . , 2007.

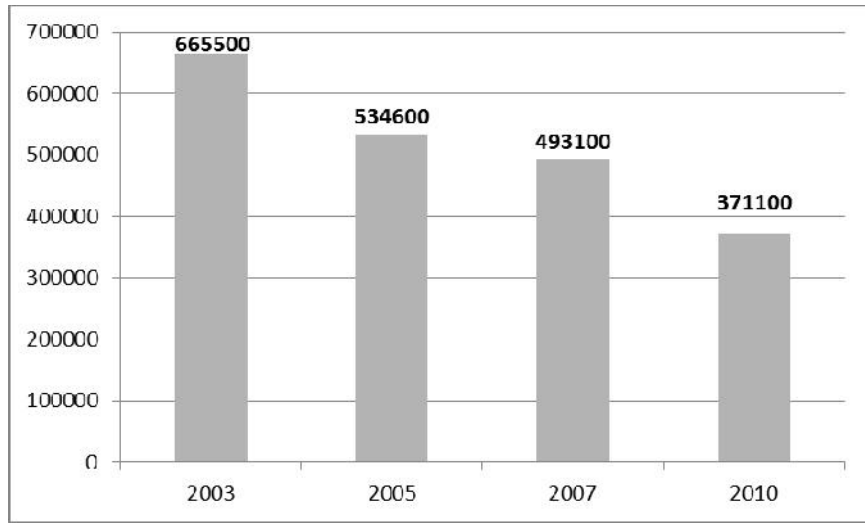
2. , . , 1994.

3. , . , 2001.

⁶ : <http://www.nsi.bg/otrasal-eventbg.php?n=1222&otr=4>

4. :
- <http://creditcenter.bg>
 - http://www.creditland.bg/bg/index/useful/mortgage_types/Default.aspx
 - <http://www.nsi.bg>
 - <http://www.bnb.bg>
 - <http://www.fibank.bg/>

95%
(,)



. 1.

(2003-2010 .)¹

¹ , 2010.

2003-2010 .
(1).

(1).

I

(2003-2007 .)

	2003 ¹	2007 ²		
				%
4	647658	471360	- 176298	- 27
4	17890	21773	3883	22

: (1)

; (2)

(2007-2013); (3)

; (4)

² , 2003.

³ , 2007.

4.	3500	600	.
	,	-	-
	,		-
			-
	(1%)	80%	5.
2007 .			-
		(2007-2013).	
30	,	4	-
:		1	-
”		”	-
		”	-
-	,	”	-
	”	”	-
6,			-
.			-
”		”	-
			-
			-
80		”	-
-	”		-
”	,	”	-
	”	”	-
”	(2007-2013).	”	-
		”	-
			-
			-
			-

4 (2007-2013).
5 , , 2007.
6 Agrotec SpA, 2010.

(2007-2013)

1. . (2011)
2. . (2010) . (2005). -
3. 2003 . . (2008) -
4. 2006/2007 . . (2009). -
5. (2007-2013). (2007). -
6. 2001-2007). Agrotec SpA (2010). 2007-2013 : 2007-2009 . -
7. (2006). (2007-2013). -

” 1987 .
 Sang W. Hwang
 (1998),
 ” ” ”.
 ()
 United Nations et al (2003),
 ()
 ” ” ”.
 3.

¹ WCED „Our Common Future”, 1987.
² Sang, W. Hwang, 1998.
³ http://www.eeagrants.org/asset/341/1/341_1.pdf

0. , 0 1. -
 - , (- 1) -
 , -

$$Iev_i = (U_1 + U_2 + \dots + U_n): n$$

$$I s_i = (U_1 + U_2 + \dots + U_n): n$$

$$Isa_i = (U_1 + U_2 + \dots + U_n): n$$

$$Isd_i = \sqrt[3]{Iev_i Ies_i Isa_i}$$

U₁, U₂.....Un

n - ;

(, 0,)

1. WCED „Our Common Future”, 1987.
2. Sang, W. Hwang. A General Evolutionary Methodology for Sustainable Development. 1998 Costanza 1991; Daly 1991; Norgaard 1994; Rees 1995.
3. http://www.eeagrants.org/asset/341/1/341_1.pdf „Sustainable Development Policy and Guide”, p. 3.
4. Raman, S. Agricultural sustainability – principles, processes and prospects. 2006.
5. United Nations. Measuring Sustainable Development. 2008, . 30.
6. Segnestam, L. Indicators of Environment and Sustainable Development – Theories and Practical Experience. 2002, . 4.
7. Castoldi, N. and L. Bechini. Integrated sustainability assessment of cropping systems with agro-ecological and economic indicators in northern Italy. 2009.

.
 ” . . ” -
 : , , , ,
 , , .
 , , , , -
 , . -
 , , , ,
 .
 90- -
 ,
 ()
 (1990-2000) -
 .
 -
 , -
 .
 , , , , -
 : , , , ,
 .
 , , , ,
 .

2013 .

4.

5.

6.

7.

2010 . - 4,44 2003

10,13 2010 .,

// , 2007, . 32.

, ; -
 ; -
 , , 8. -
 ➤ , . ;
 ➤ ; -
 , , , -
 ➤ ; -
 ➤ 9. ; -
 , -
 ➤ ; -
 ➤ 10. ; -
 ➤ , -
 ➤ 11. ; -
 ; ;
 ➤ ;
 ➤ ;
 ➤ , -
 , -
 . -

8 , 2011 -
 9 , -
 10 , -
 11 . -

1,3 . , 2012 .
 2013 ., <http://www.mzh.government.bg>.

12,



12

70% 2050 ..

13

311, 321 322



” . . . ” —

10-15%.

1/3

80%

1

”, 2008.

			32,2	.	.	-
			(37,6%			-
			(24,1%)			-
(19,9%).),				-
		,	(13,4%)		(11%).	-
			(	2005 .)		-
		11	,			-
	-	,	,			-
		,	.			-
		,	.			-
		,	,			-
		,	.			-
		,	,			-
				2007		-
				106	,	-
2008		105	89	.		-
		2007	10%			-
			.			-
		2008	.			-
					90%	-
			.			-
			(-
),	(,	,	-
-)	,	,	,	-
		(,	,	.),	-
			(,	,	-
		,	,	,	,	-
		,	,	,	,	-
		,	,	,	,	-
		,	,	,	,	-
		7,	,	,	,	-
		,	,	,	,	-

⁶ ,

⁷ ” ” , 9, 2009, . 56.

” ” , 2007.

(31,40%); - : (49,80%);
 (14,25%); (25,30%); (17,68%);
 (8,71%). (12,66%); (12,60%);
 40
 (50%), -
 , , , , . , 2008
 , 733; 657

54 7% 733
 2008

7,5 . .

- - . . :
- ; , -
- ; , -
- ; ,8
- ; -
- ; - -
- ; -
- ; , -

50-60% -

⁸ , . . 1, 2011, . 55.

9 -2020

FMCG (fast moving consumer goods).

Sean Brierley¹, Ray Wright², S. Bhalla, S. Anuraag³, Justin Paul⁴,
⁵, ⁶, ⁷, ⁸, ⁹,
¹⁰ www.businessdictionary.com¹¹,

Susanna Jaray¹² <http://en.wikipedia.org>¹³,

Sean Brierley, Ray Wright¹⁴, B. Dogra, K., Ghuman¹⁵,

¹ Brierley, S., The advertising handbook, NY 2002, p. 14-15.

² Wright, R., Marketing: Origins, Concepts, Environment, Thomson Learning, 1999, p. 136-137.

³ Bhalla, S., S., Anuraag, Visual Merchandising, McGraw Hill, 2010, p. 34.

⁴ Paul, J., International Business, 4th Ed., PHI 2008, pp. 50-56.

⁵ , ,, , 2002, . 509.

⁶ , ,, : 15 , , 2004, .46.

⁷ , ,, , 2008, .60, .

⁴- , 2011, .499.

⁸ , ,, , 2010, .75.

⁹ , ,, , 2002, . 148-152.

¹⁰ , ,, , - , ,, 2008, . 148-151.

¹¹ <http://www.businessdictionary.com>

¹² Jaray, S., Marketing (Australia Wide), Ultimo NSW, 2007, pp. 23-24.

¹³ <http://en.wikipedia.org>

¹⁴ Wright, R., Marketing: Origins, Concepts, Environment, Thomson Learning, 1999, p. 136-137.

¹⁵ Dogra, B., K., Ghuman, Rural Marketing, Concepts and Practices, McGraw Hill, 2008, p. 166.

Sean Brierley, Ray Wright, S. Bhalla, S. Anuraag, Justin Paul, A. Sarangapani, B. Dogra, K., Ghuman, C. Krishnamacharyulu, L. Ramakrishnan¹⁶, Rachna Sagar¹⁷, . . . , . . . ¹⁸, -

((), (), *perishable goods*¹⁹ NASE²⁰, 1893/2006 (1). (2).

¹⁶ Krishnamacharyulu, C., L. Ramakrishnan, Rural Marketing, Text and Cases, 2th Ed., 2011, p. 402.
¹⁷ Sagar, R., LTD, TOgeder with Economic Applications, Rachna Sagar LDT, 2005, p.219.
¹⁸ . . . , 6/2009, .26.
¹⁹ Man, D., A., Jones, Shelf-Life Evaluation of Foods, 2nd Edition, ASPEN PUBLICATION, 2000, pp. 90-102, T. Jain, O. Khanna, Business Economics, V.K. Publications, 2009, pp35-36.
²⁰ <http://eur-lex.europa.eu> , <http://europa.eu> , <http://epp.eurostat.ec.europa.eu> , - (-2008), . . . , 2008.

1. , ;	1. (
2. , ;	2.);
3. -	3. , ;
- ();	4. ;
4. ;	5. .
5. ();	
6. ;	
7. / ;	
8. .	

²¹	2000	85	Clever MY –
²²	1991	36	FF , FF , FF FF .
²³	2006	39	Vian, Stilla Dolce, Vitae d'oro, Sun Gold, 2010 K-Classic.
²⁴	1995	26	,
²⁵	2003	170	,
T MARKET ²⁶	2005	42	Optima Linija Maxima Favorit.
²⁷	2010	53	.
²⁸	2009	47	.
²⁹	2009	7	.

Planet Retail³⁰

1900

6-7%

2600.

2016 .

Daily³¹

²¹ www.billa.bg (02.04.2012 .).

²² www.ff-bg.net (03.04.2012 .).

²³ www.kaufland.bg (03.04.2012 .).

²⁴ <http://www.piccadilly.bg> (03.04.2012 .).

²⁵ www.cba.bg (03.04.2012 .).

²⁶ <http://www.maximabulgaria.bg> (03.04.2012 .).

²⁷ www.lidl.bg (03.04.2012 .).

²⁸ <http://www.penny.bg> (04.04.2012 .).

²⁹ www.roda.bg (03.04.2012 .).

³⁰ Daily - 23.01.2012 .

³¹

, , -
 , -
 , -
 , -
 , -
 .
 32 Regent's,
 .
) (,
) „ „ Daily”,
 „ Express”³³.
 34
 , , , -
 , , -
 GfK³⁵ „ -
 ” , -
 , -
 .
 , -
 :
 , -
 - ; -
 , - ;

³² „ „ - „ ” - 28.01.2012 .

³³ Daily - 05.04.2012 .

³⁴ . - . 2011 .,

³⁵ „PROGRESSIVE” . 2012 .

, , - -
, ;
, ;
, ;
, -
, -
... .

¹ UNEP, www.unep.org/pc/tourism/sust-tourism/economic.htm

² 2008, .156.

³ Morisen,A., R. Mill. The Tourism System. Kendal/Hunt publication company. 2006, p. 204.

(UNEP/IE)

- . , -
 ,
 ,
 , -

2012

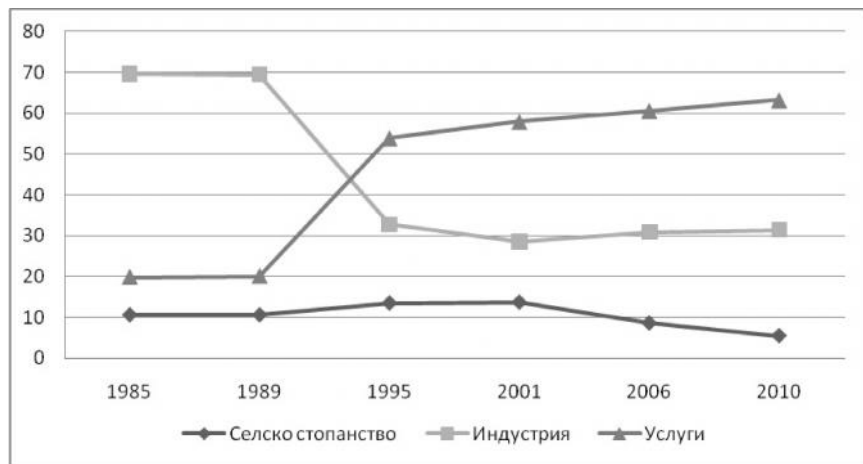
2011 –

1985-2006

1985-2006

(1985-1989);
(1991-2001)
(2002-2006).

1,



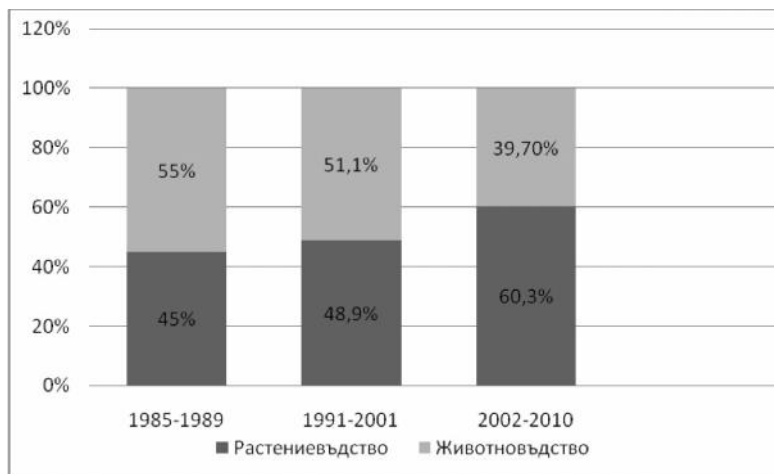
1.

(%)¹

1998 . 5,4% 2010 . 10,5% 1989 . 21%

1985 . – 2006 . 2

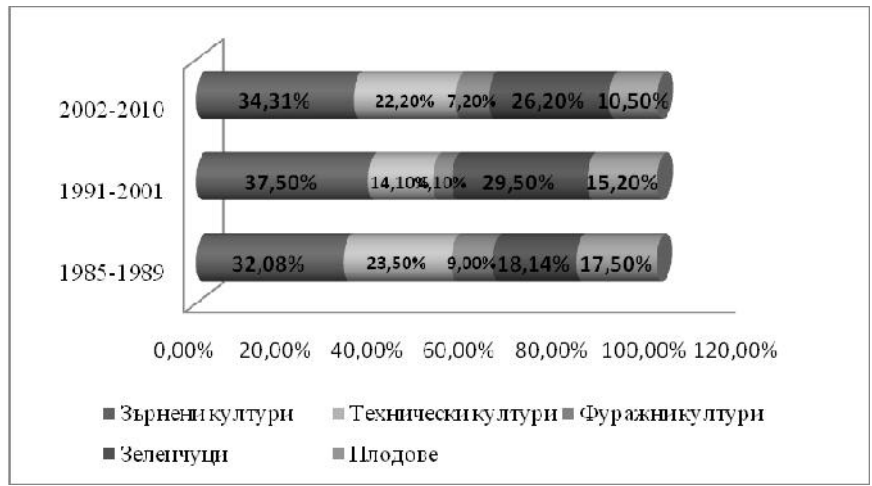
55%.



2.

(%)²

2

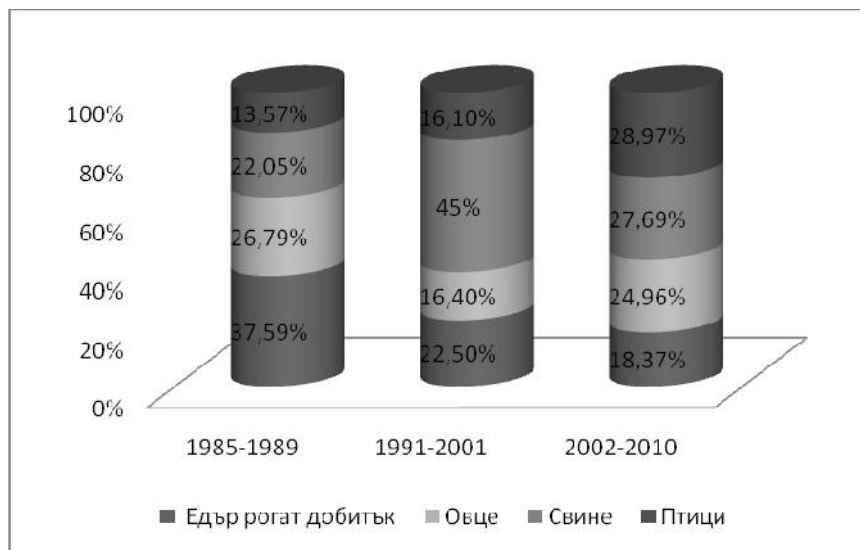


3.

(%)⁴

⁴
⁵

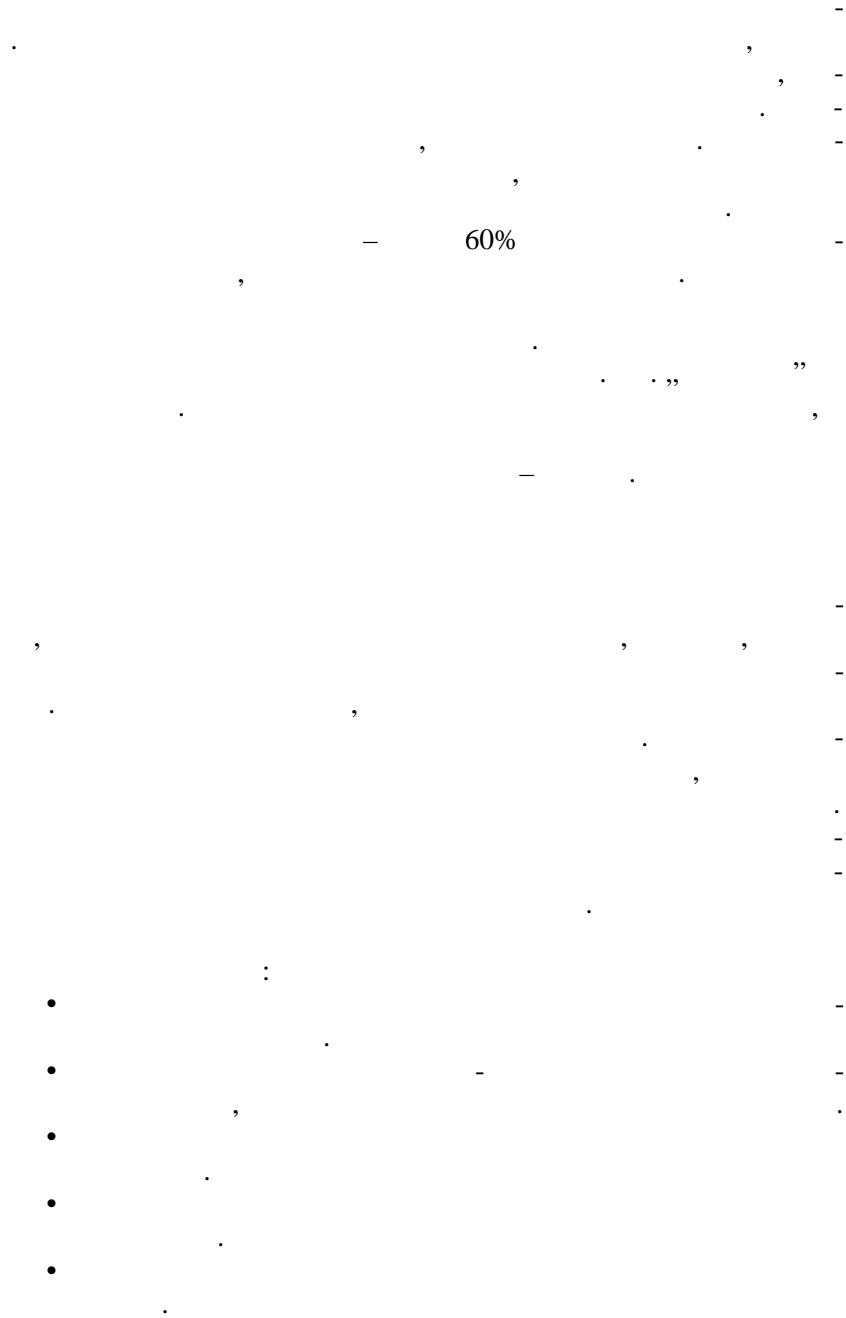
1989 .



4.

(%)⁶

⁶ : .



1. - 1986 . - 2011 . -
2. , . -
3. , . ,2011, 5,47-52. -
,2008,
5,3-10.

- 7.5 ; ; - 8.7 ; -
 , , . -
 . -
 , , -
 , . -
 , -
 . -
 2007 ; 23,3 ; 1999 . 27,4 .
 ; ; - 5,1 ; 2,8 .
 1 ; -4,9 ; -0,5 .² -
 ; 120 320-340
 89,5 . 15- 26 . 14 .
 18% . 10-
 , - - .
 43,7% . (1999-2007 .
 .)
 ,
 , - -

² . 2007.

23.07.2012 . 30.69
23.08.2012 . 29.16
601 90/16 110

” ”

—
” 24
—

ISBN 978-954-21-0602-9