ANALYZE THE PROFIT TAX VALUE EVOLUTION OF MEDIUM TAXPAYER ENTITIES IN COVASNA COUNTY BETWEEN 2011 - 2013

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Abstract: Depending on fund and form characteristics the taxes are grouped into: direct taxes and indirect taxes. Within the direct taxes one of the most important for the state budget is the profit tax. We can mention that the evaluation procedures / methods which the entity consistently uses, have influente over the registered profit tax. The study contains an analysis of the profit tax value registered by medium taxpayers entities in Covasna county, in relation with the net turnover, operating revenues, total revenues and operating results, respectively with the field of activity.

Key words*: profit tax, net turnover, operating revenues, total revenues, operating results, fiscality*

JEL classification: M41, C20

Introduction

The best known definitions of fiscality are the following:

- Perception system of taxes and fees by tax institutions
- System of laws, regulations, provisions concerning the fixing and collecting taxes (http://dexonline.ro/definitie/fiscalitate).

A country's fiscal system is the complete setup of government revenue and expenditures and the way in which government agencies carry them out. This system is governed by fiscal policy, which comes from decisions made by the governing body. Businesses must understand a country's fiscal system to operate effectively within its borders likewise, countries must sustain stable fiscal systems to encourage long-term investment (Kimmons: What Is a Fiscal System?)

In accordance with Turof (2009), fiscal policy represents all decisions taken by public governor factor in order to ensure financial resources for financing public needs and to achieve finality on the nature of economic and social, in terms of the factors acting on the economy or real objective, which tendency is not only cyclical. Regardless of the nature and magnitude of macro fiscal decisions, it is exercised through coercion, which is organized and legitimize the social aspect, inducing structural evolution of the tax system.

Profit tax is one of the major revenue of the state budget, which has a relatively high share in total budgetary revenues. The flat tax level has varied in the sense of diminishing, leading now to a share 16%, effective from 1 January 2005 (Oanea & Apostoaie, 2010).

The main characteristics of the profit tax are: *the subject of tax or taxpayer*; *the area the tax applies to*; *the fiscal year* (The fiscal year is the calendar year); *the tax rate* (The profit tax rate applied to the taxable profit is 16%, except the cases stipulated in art. 38 from the Fiscal Code.); *the tax base* (The taxable profit is calculated as the difference between the income obtained from any source and the expenses made in order to achieve income during a fiscal year, deducting the tax- free income and adding the nondeductible expenses.); *paying the taxes and submitting the tax return* (The taxpayers are obliged to

submit an annual income tax return until the 25th of March, including the 25th, of the next year; they are responsible for calculating the profit tax.) (Cucoşel, 2010).

Material and Methods

The main objective of this empirical study is to analyze the relation between net turnover, operating revenues, total revenues and operating results with profit tax especially to study whether there exists statistically significant difference between net turnover, operating revenues, total revenues and operating results regarding profit tax value.

In this empirical study the information from annual financial statements of the medium taxpayers entities from Covasna county for the years 2011 – 2013 has been processed. The analysis is based on 113 entities' financial statements.

General hypothesis

H_1 Between net turnover, operating revenues, total revenues and operating results regarding profit tax value there exists statistically significant difference.

Statistical hypotheses

H_0^1 : Between net turnover, operating revenues, total revenues and operating results regarding profit tax value no more than two financial indicators show statistically significant differences.

H_1^1: Between net turnover, operating revenues, total revenues and operating results regarding profit tax value more than two financial indicators show statistically significant differences.

To validate the hypotheses we used during the empirical research Kruskal – Wallis H test, which is the nonparametric equivalent of the One – Way ANOVA test. This test follows comparing several independent samples. Because the Kruskal – Wallis H test does not show between which groups exists statistically significant difference (group I. vs. group II., group I. vs. group III. and group I. vs. group IV.) for each financial indicator, we had to use the Mann-Whitney U test, to compare the pairs: group I. vs. group II., group I. vs. group III. and group I. vs. group IV.

Furthermore, we made the descriptive analysis of the financial statements by calculating the average of net turnover, operating revenues, total revenues and operating results.

Results and discusions

Verification of the hypothesis is based on the analysis of financial statemets of the 113 medium taxpayers entities in Covasna county included in the sample.

We test, whether there exists statistically significant difference between net turnover, operating revenues, total revenues and operating results regarding profit tax value, using Kruskal-Wallis H test. We made four groups for each financial indicator, based on the financial infomation in the annual financial statements, for the years 2011 – 2013:

- Net Turnover: below 10.000.000 lei, between 10.000.001 – 20.000.000 lei, between 20.000.001 – 30.000.000 lei and over 30.000.000 lei
- Operating Revenues: below 10.000.000 lei, between 10.000.001 – 20.000.000 lei, between 20.000.001 – 30.000.000 lei and over 30.000.000 lei
- Total Revenues: below 10.000.000 lei, between 10.000.001 – 20.000.000 lei, between 20.000.001 – 30.000.000 lei and over 30.000.000 lei
- Operating Results: below 500.000 lei, between 500.001 – 1.000.000 lei, between 1.000.001 – 2.000.000 lei and over 2.000.000 lei

First we test, if there exists statistically significant difference between the financial indicators regarding profit tax value in 2011.

Ranks

	Groups	Net Turnover 2011	N	Mean Rank
Profit tax 2011	I.	below 10.000.000	68	49.65
	II.	between 10.000.001 - 20.000.000	24	62.08
	III.	between 20.000.001 - 30.000.000	12	82.75
	IV.	over 30.000.000	9	64.67
		Total	113	

Ranks table shows the number of subjects and the average rank. From this table we can conclude that entities which have greater (group III.) net turnover do have higher average rank than others entities with lower net turnover (group I.).

Test Statistics(a,b)

	Profit tax 2011
Chi-Square	12.008
df	8
Asymp. Sig.	.007

a Kruskal Wallis Test

b Grouping Variable: Net Turnover 2011

Test Statistics table shows the value of Chi-Square and the associated limit of signification / significance level. From this table we can conclude that between net turnover and profit tax value there exists statistically significant difference. We analyze with the Mann-Whitney U test if statistically significant difference exists regarding the profit tax between of the following pairs: first group vs. second group, first group vs. third group and first group vs. fourth group.

The Mann-Whitney U test shows that, between the group I. and group III. of net turnover exists statistically significant difference regarding the profit tax. For example we present below an aplication of the Mann-Whitney U test for Net Turnover 2011.

Mann-Whitney Test

Ranks

	Net Turnover 2011	N	Mean Rank	Sum of Ranks
Profit tax 2011	below 10.000.000	68	36.91	2510.00
	between 20.000.001 - 30.000.000	12	60.83	730.00
	Total	80		

Test Statistics(a)

	Profit tax 2011
Mann-Whitney U	164.000
Wilcoxon W	2510.000
Z	-3.299
Asymp. Sig. (2-tailed)	.001

a Grouping Variable: Net Turnover 2011

Furthermore, using Kruskal-Wallis H test for the other financial indicators (operating revenues, total revenues and operating results regarding profit tax value) the result is that between the three indicators regarding profit tax value statistically significant difference exists.

The Mann-Whitney U test shows that, between the group I. and group III. of operating revenues exists statistically significant difference regarding the profit tax, , between the group I. and group II., group I. and group III. of total revenues exists statistically significant difference regarding the profit tax, respectively between the four groups (group I. vs. group II., group I. vs. group III. and group I. vs. group IV.) of operating results there exists statistically significant difference regarding the profit tax.

In Tabel No. 1 there are presented the average values of the net turnover, operating revenues, total revenues and operating results, the profit tax ratio regarding the net turnover, operating revenues, total revenues and operating results. The highest differences of the profit tax ratio are between the smallest medium taxpayer entities in Covasna county and between the largest medium taxpayer entities, excepting operating results.

Table No. 1 The average of the four financial indicators and the average of the profit tax in 2011 regarding the four financial indicators

	2011			
	Below 10.000.000	*Between 10.000.001 – 20.000.000*	*Between 20.000.001 – 30.000.000*	*Over 30.000.000*
Net Turnover	6.493.064,81	15.196.604,71	24.650.849,25	34.523.341,89
Profit tax	45.611,21	121.100,81	283.291,00	459.213,67
Ratio	***0,70***	***0,80***	***1,15***	***1,33***
Operating Revenues	6.612.898,09	14.729.639,52	25.098.235,18	35.876.001,50
Profit tax	44.894,06	104.440,33	270.363,50	476.450,33
Ratio	***0,68***	***0,71***	***1,08***	***1,33***
Total Revenues	6.640.329,42	14.772.521,39	25.248.565,90	36.074.557,55
Profit tax	44.442,19	103.346,54	309.694,90	403.224,18
Ratio	***0,67***	***0,70***	***1,23***	***1,12***
	Below 500.000	*Between 500.001 – 1.000.000*	*Between 1.000.001 – 2.000.000*	*Over 2.000.000*
Operating Results	254.565,72	696.508,50	1.335.357,85	4.597.637,17
Profit tax	29.362,64	74.455,73	173.805,46	648.957,33
Ratio	***11,53***	***10,69***	***13,02***	***14,12***

We mention, in the first group of the forth indicator were included just the entities which registered operating profit (53 of 66).

Furthermore using Kruskal-Wallis H test for the financial indicators (net turnover, operating revenues, total revenues and operating results regarding profit tax value) from 2012, the results shows also that between the four indicators regarding profit tax value there exists statistically significant difference.

Ranks

	Groups	Net Turnover 2012	N	Mean Rank
Profit tax 2012	I.	below 10.000.000	62	44.27
	II.	between 10.000.001 - 20.000.000	32	65.75
	III.	between 20.000.001 - 30.000.000	9	83.56
	IV.	over 30.000.000	10	84.00
		Total	113	

Test Statistics(a,b)

	Profit tax 2012
Chi-Square	24.545
df	3
Asymp. Sig.	.000

a Kruskal Wallis Test

b Grouping Variable: Net Turnover 2012

The Mann-Whitney U test shows that, between the four groups of net turnover, operating revenues, total revenues and operating results exists statistically significant difference regarding the profit tax value.

In Tabel No. 2 there are presented the average values of the net turnover, operating revenues, total revenues and operating results, the profit tax ratio regarding the net turnover, operating revenues, total revenues and operating results. The highest differences of the profit tax ratio are between the smallest medium taxpayer entities in Covasna county and between the largest medium taxpayer entities.

Table No. 2 The average of the four financial indicators and the average of the profit tax value in 2012 regarding the four financial indicators

	2012			
	Below 10.000.000	*Between 10.000.001 – 20.000.000*	*Between 20.000.001 – 30.000.000*	*Over 30.000.000*
Net Turnover	5.985.617,73	13.807.184,22	25.273.708,22	37.976.422,70
Profit tax	34.601,47	98.561,03	312.237,67	549.543,20
Ratio	***0,58***	***0,71***	***1,24***	***1,45***
Operating Revenues	6.289.458,90	14.056.812,29	25.197.564,91	38.460.672,27
Profit tax	34.546,65	99.167,75	205.162,09	581.354,18
Ratio	***0,55***	***0,71***	***0,81***	***1,51***
Total Revenues	6.318.665,21	13.883.389,39	24.263.988,60	37.904.453,00
Profit tax	34.317,00	96.505,71	228.499,50	499.231,23
Ratio	***0,54***	***0,70***	***0,94***	***1,32***
	Below 500.000	*Between 500.001 – 1.000.000*	*Between 1.000.001 – 2.000.000*	*Over 2.000.000*
Operating Results	225.479,06	686.049,43	1.389.008,21	4.963.186,55
Profit tax	23.323,42	83.110,74	143.684,14	768.648,36
Ratio	***10,3439***	***12,11***	***10,3444***	***15,49***

We mention, in the first group of the forth indicator were included just the entities which registered operating profit.

Likwise the use of Kruskal-Wallis H test for the financial indicators (net turnover, operating revenues, total revenues and operating results regarding profit tax value) from 2013, the results show also that between the four indicators regarding profit tax value there exists statistically significant difference.

Ranks

	Groups	Net Turnover 2013	N	Mean Rank
Profit tax 2013	I.	below 10.000.000	65	46.37
	II.	between 10.000.001 - 20.000.000	28	63.68
	III.	between 20.000.001 - 30.000.000	7	66.00
	IV.	over 30.000.000	13	90.92
		Total	113	

Test Statistics(a,b)

	Profit tax 2013
Chi-Square	22.716
df	3
Asymp. Sig.	.000

a Kruskal Wallis Test
b Grouping Variable: Net Turnover 2013

The Mann-Whitney U test shows that, between the four groups of net turnover, operating revenues, total revenues and operating results exists statistically significant difference regarding the profit tax, less than: net turnover group I. vs. group III., operating revenues group I. vs. group III. and total revenues group I. vs. group III.

The average values of the net turnover, operating revenues, total revenues and operating results, the profit tax ratio regarding the net turnover, operating revenues, total revenues and operating results are also presented in Tabel No. 3. We can notice that the highest differences of the profit tax ratio are between the smallest medium taxpayer entities in Covasna county and between the largest medium taxpayer entities, excepting operating results.

Table No. 3 The average of the four financial indicators and the average of the profit tax in 2013 regarding the four financial indicators

	2013			
	Below 10.000.000	*Between 10.000.001 – 20.000.000*	*Between 20.000.001 – 30.000.000*	*Over 30.000.000*
Net Turnover	5.788.407,82	13.638.071,18	24.577.979,57	40.549.317,23
Profit tax	35.578,63	106.932,56	243.809,71	574.413,62
Ratio	***0,61***	***0,78***	***0,99***	***1,42***
Operating Revenues	6.067.579,35	13.987.524,33	24.421.829,83	41.498.254,50
Profit tax	36.061,05	108.452,35	284.444,67	533.384,07
Ratio	***0,59***	***0,78***	***1,16***	***1,29***
Total Revenues	6.091.543,00	14.097.770,79	24.874.318,83	42.345.831,21
Profit tax	34.978,15	108.378,15	284.444,67	533.384,07
Ratio	***0,57***	***0,77***	***1,14***	***1,26***
	Below 500.000	*Between 500.001 – 1.000.000*	*Between 1.000.001 – 2.000.000*	*Over 2.000.000*
Operating Results	199.626,33	776.444,21	1.405.500,15	5.264.496,00
Profit tax	25.981,07	85.545,14	195.319,15	828.922,18
Ratio	***13,01***	***11,02***	***13,90***	***15,75***

We mention, in the first group of the forth indicator were included just the entities which registered operating profit.

In the following lines we analyze three entities annual (2011 – 2013) which registered the biggest profit tax, in relation with the net turnover, the field of activity and the employees.

In Table No. 4 there are presented the net turnover values of the three entities annual (2011 – 2013), which registered the biggest profit tax in 2011, 2012 and 2013, also there are presented the field of activity and the number of employees.

Table No. 4 The biggest profit tax value 2011 - 2013

Period	Net Turnover	Profit tax	Field of activity	Employees
2011	23.209.145	860.939	Manufacture of wearing apparel	534
	40.446.948	1.090.165	Manufacture of wearing apparel	876
	32.157.662	2.150.028	Finishing of textiles	175
2012	26.339.217	899.464	Manufacture of bakery	169
	39.016.751	954.223	Manufacture of wearing apparel	831
	36.606.486	2.770.723	Finishing of textiles	175
2013	43.116.893	1.138.083	Manufacture of wearing apparel	864
	32.043.002	1.392.868	Manufacture of bakery	185
	41.269.281	2.420.574	Finishing of textiles	175

In the 2011 – 2013 period the biggest profit tax were recorded in finishing of textiles activity, the profit tax ratio based on net turnover it was between 5,87 – 7,57%.

Conclusions

According to the research results alternative hypothesis is validated. Between net turnover, operating revenues, total revenues and operating results regarding profit tax value more than two financial indicators show statistically significant differences, all of four financial indicators (net turnover, operating revenues, total revenues and operating results) show statistically significant differences.

This means that in majority of the cases with the increase of the four financial indicators the profit tax of the entities also increases. This differences are most noticeable between I. group vs. IV. group, especially in the case of net turnover, operating revenues and total revenues. For example the entities with net turnover over 30.000.000 lei have profit tax ratio based on net turnover of 1,33% (2011) and the smallest medium taxpayer entities 0,70%; the entities with operating revenues over 30.000.000 lei have profit tax ratio based on operating revenues of 1,51% (2012) and the smallest medium taxpayer entities 0,55% and the entities with total revenues over 30.000.000 lei have profit tax ratio based on total revenues of 1,26% (2013) and the smallest medium taxpayer entities 0,57%. So we can conclude that entities with greater net turnover / operating revenues / total revenues registered biggest profit tax than entities with lower net turnover / operating revenues / total revenues.

Furthermore, based on the empirical research made, we can conclude that the biggest profit taxes were registered among the medium taxpayers entities in Covasna county in the following areas: finishing of textiles, manufacture of wearing apparel and manufacture of bakery.

References

1. Cucoşel, C. (2010), *The profit tax versus the income tax for microenterprises*, Euro Economica (Euro Economica), issue: 26 / 2010, pp. 17-26
2. Oanea, D.- C., & Apostoaie, M.- C. (2010), *Analysis on the relationship between the profit tax and investments in the context of a globalised world. Case study – Romania*, CES Working Papers (CES Working Papers), issue: 3 / 2010, pp. 39 - 52 Turof, M. (2009), *The effects of microeconomic fiscal policy*, Studia
3. Universitatis Vasile Goldiş, Arad Economic Sciences (Studia Universitatis Vasile Goldiş, Arad Seria Ştiinţe Economice), issue: 14 / 2009, pp. 266 - 272
4. Kimmons, R., *What Is a Fiscal System?* Retrieved from http://www.ehow.com/info_8532826_fiscal-system.html
5. Vicenţiu, A. (2008). *Spss pentru ştiinţele educaţiei*, Iaşi: Editura Polirom,
6. *** http://dexonline.ro/definitie/fiscalitate