

CREATIVE ACCOUNTING – TANGIBLE ASSETS AND AMORTIZATION

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Abstract:

Evaluation is a necessary first order and consists of expressed using monetary standard the assets, processes and resources of the entities. Economic entities and their leaders have different techniques for handling information presented in the annual statements: to influence the results or to change the entity financial position. The most used creative accounting techniques for tangible assets are the following: treatment of amortization and impairments policy, the revaluation of tangible assets, capitalization of expenses subsequent to commissioning (capitalize or not the expenses) and treatment of development costs. The objective of this paper is to present the influence of the amortization policy used by entities in Romania and Hungary by a case study on the annual financial statements.

Key words: creative accounting, amortization, accounting profit, assets value

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1. CREATIVE ACCOUNTING CONCEPT

The first mention of creative accounting was made more than a half century and belongs to parent of accounting – Luca Paciolo. Thus, Luca Paciolo was shaping in his already renowned *De Arithmetica*, the first accounting manual, practices of creative accounting. In the context of brisk Venetian foreign trade, relationships between traders were recorded by double-entry bookkeeping with ink and quill-pen in main and subsidiary books. Where discrepancies arose, the inkwell was occasionally knocked over on these books – not always unintentionally – in order to make the entries illegible (Balciu & Vladu, 2010).

Searching for roots of appearance of creative accounting concept in accounting literature allows us to see that the accounting problem of handling accounts is old, origin of which were developed until the 1920s (Naser, 1993 cited by Boța-Avram, 2009).

In the context of the world economic crisis nowadays, creative accounting will be referred to more often as a field from where it is expected either to offer live-saving solutions or be blamed for all the negative evolutions. On this aspect, Salustro and Leburn (quoted by Delesalle, 2000 and Balciu & Vladu, 2010) would say: „Crisis periods are actually trials for enterprises; affecting their cash flow and generating risks, that accounting doesn't deal with in a flawless manner. Therefore, managers are tempted to resort to ingenious, more often questionable procedures, for refining accounts presentation.”

Based on researches we do the presentation of several definitions of the term “creative accounting” as follows in Table 1.

Table 1. Synthesis of the main conceptual approaches of creative accounting

<i>Source</i>	<i>Conceptual approach</i>
Barnea et al., (1976)	The term "creative accounting" can be defined in various ways. Including the following: Is the deliberate dampening of fluctuations about some level of earnings considered being normal for the firm.
Jameson, (1988)	Creative accounting not comes to meet laws, but it often act in the spirit of laws and accounting rules, but it is clear that it is contrary to their spirit. It is firstly, the manner in which are used the accounting rules, discovery the flexibility of these rules, but also their inability to show financial statements that would have been in the case respect them in a strictly
Naser, (1993)	Creative accounting may be defined as: - the process of manipulating accounting figures by taking advantage of the loopholes in accounting rules and the choices of measurement and disclosure practices in them to transform financial statements from what they should be to what preparers would prefer to see reported, and - the process by which transactions are structured so as to produce the required accounting results rather than reporting transactions in a neutral and consistent way
Barthes de Ruyer & Gerard (1992); Pasqualini & Castel, R. (1993)	Creative accounting is a translation of financial creativity, or better said of financial engineering, which continually create new techniques to bypass accounting or tax provisions, and effective technology by which make these techniques fall under of creative accounting techniques.
Trotman, (1993)	Creative accounting is a communication technique aimed to improving the information provided to investors. Taking advantage of the limits of accounting normalization, through creative accounting decorate the financial position image and performance of the entity, this practice is at the limit of legality. Therefore, creative accounting becomes a communication technique which aims to exploit by financial statements the right image of an entity for investors.
Colasse (citat de B. Raybaud-Turrillo & R.Teller, 1996)	Creative accounting means "Accounting information practices, often at the limit of legality, practiced by some entities which take advantage of normalization limits, trying to beautify its financial situation image and the economic and financial performance.
Shah, (1998)	Creative accounting can be understood as the process by which the management uses some deficiencies or ambiguities of the content of accounting rules in order to present a particular image of the financial performance.
Lainez & Callao (1999)	Creative accounting is as a use of possibilities (they are: the existence of options, subjectivity and gaps in the rules) offered by accounting legislation to provide financial statements to reflect the desired image and not an objective reality.
Stolowy, (2000)	Creative accounting can be defined as a set of processes that focus on either adjusting the results to maximize or minimize its or presenting financial statements without these two excluding each other. Accounting options have always been available to the accountants and these does not mean creativity in the strict sense negative of the word.
Blake et al., (2000)	Creative accounting involves accountants in making accounting policy choices or manipulating transactions in such a way as to convey a preferred and deliberately chosen impression in the accounts.
Gillet (cited by Shabou & Boulila Taktak, 2002)	Creative accounting is a set of techniques, options generated by some shortcomings of the accounting rules, without get out of accounting law, allows managers to modify the financial result of the financial statements in the desired direction.

Source: process after Boța-Avram, 2009; Munteanu & Zuca, 2011 and Tabără & Rusu, 2011

The presented elements demonstrates that, although there is disagreement regarding the definition of creative accounting, most researchers agree that, in essence, it is distinguished by two aspects:

- first, it requires imagination use of professional accountants to translate those legal, economic and financial innovations for which do not exist accounting normalized solutions at the time when they appear
- secondly, montages resulting from this financial engineering are initiated depending on their incidence entity to balance sheet and entities results (Munteanu & Zuca, 2011).

In attempt to capture as accurately the creative accounting meaning, from definitions of different authors besides the two characteristics mentioned above is still an essential characteristic, creative accounting does not imply breaches of the law. Amati & Blake reveal that creative accounting operates at the level of nuance – area – where it can't bring motivated accusations of breach of professional rules or laws, but the common sense logic notifies the presence of a certain dose of “forcing the note” (Dobroțeanu, 2005 cited by Chilarez & Stoian, 2008).

Authors like Malb & Giot (1995, cited by Munteanu & Zuca, 2011) draw attention that we should not assimilate automatically creative accounting with something negative or perverse. Accounting innovation is necessary to keep up with economic, legal and social developments. “At its origin, creative accounting is virtuous: it provides accounting resources to enable him to keep up with markets increasing development and proliferation of financial products. The problem derives from the fact that it begins to rapidly develop business instinctive perversity.”

Ristea (2004, cited by Munteanu & Zuca, 2011) lists the following accounting procedures which affect the accounting truth:

- a) application options related accounting policies permit basic and alternative treatments;
- b) applying preferential of the assessments in the accounting: test of impairment of assets, revaluation of property, changing assessment methods of the inventory, subjective evaluation of intangible assets and financial securities, changing of depreciation rhythm, flexibility of the policies on reserves; the internal prices of transfer of assets and transfer between subsidiaries of the same group;
- c) handling accounts by structuring and delaying real transactions;
- d) increase the difference between accounting value and the purchase price by undervalue of assets and charging the difference on reserves;
- e) realization of the operations “lease-back”, by which it is made an asset sale followed by lease from the purchasing company. The effect of such transactions is to improve treasury, decrease od dept rate and increase the benefits;
- f) attenuation losses of claims by subscribing insurance which have the effect improvement of the results with the difference between depreciation of claim value and the insurance money paid;
- g) issue of hybrid securities by which the entities can transform some debts in equity.

2. CREATIVE ACCOUNTING TECHNIQUES FOR TANGIBLE ASSETS (CASE STUDY)

Tangible assets offer many possibilities of adopting creative accounting techniques, mentioning the following: treatment of amortization and impairments policy, the revaluation of tangible assets, capitalization of expenses subsequent to commissioning (capitalize or not the expenses) and treatment of development costs.

Amortization policy of tangible assets

The used amortization method shall reflect how the future economic benefits of an asset are expected to be consumed by the entity. The depreciation policy adopted by

the entity management influences the results, possibility to choose for several methods of depreciation which lead to different results. In calculating economic depreciation are defined and used three factors: utility time (useful period), depreciable value (input value – residual value) and depreciation methods.

We can observe the moments in which creative accounting emerges, first which is linked to the residual value's estimation and then, at the end of subsequent years, to the revision of this estimation, second the determination of useful life and the third moment where creative accounting emerges is the choice of depreciation method.

The difference between accounting in Romania and Hungary regarding depreciation is as follows: in Hungary is taken into account the residual value of the asset to determinate depreciable value of the assets, is not taken into account when the estimated residual value is insignificant. In Romania, according to the existent accounting regulations, residual value is null, therefore it is not taken into account when calculating the depreciable cost.

Example no. 1: At 12.31.N "Alfa" entity acquired a machine, the input value is 50,000 Units, the useful life is 5 years. For depreciation of that equipment, the entity manager can choose in Romania between three depreciation methods: straight-line depreciation method, degressive method of depreciation or accelerated depreciation. We note that can choose the method of amortization per unit of product or service, when the nature of assets justifies to use a such of depreciation method. In Hungary the manager can choose between the following depreciation methods: *straight-line methods*: a) straight-line (relative) → depreciable value = entry value – residual value; b) straight-line (absolute) → depreciable value = entry value; c) straight-line by an amount (for tangible assets with established value by law). *Degressive methods*: a) life years summation method; b) degressive method with decreasing rates by multiplication method; c) degressive method with decreasing absolute amounts; d) degressive depreciation by multiple linear amortization rates, calculated on the net book value; e) degressive depreciation, based on net book value with constant rate. Respectively, it can choose the method of amortization per unit of product or service, when the nature of assets justifies to use such a depreciation method.

We analyze comparatively the impact which depreciation expense is recording in the two countries and how they are reflected in the profit and loss account of the financial year.

I. Romania

Situation 1. Straight-line depreciation method consists of include in operating expenses of fixed amounts established in proportion to the utility life of the respective asset. In our case, straight-line depreciation related to each year of use for equipment will be: $50,000 \times 20\% = 10,000$ units.

Situation 2. Degressive depreciation method involves an acceleration of depreciation in the first years after commissioning and the degressive depreciation rate is calculated by multiplying the linear damping rate with one of the following coefficients:

- 1.5 if the normal utility life of the asset is between 2-5 years, including
- 2 if the normal utility life of the asset is between 5-10 years
- 2.5 if the normal utility life of the asset is more than 10 years.

In our case, degressive depreciation will be calculated according to the degressive depreciation rate ($20\% \times 1.5 = 30\%$), obtaining: year N+1 $50,000 \times 30\% = 15,000$ units, year N+2 $35,000 \times 30\% = 10,500$ units, N+3 8,166 units ($24,500 \times 30\% = 7,350$ units or $24,500 / 3 = 8.166$ units), so from year N+3 changing to straight-line depreciation method, N+4 8,166 units, N+5 8,168 units.

Situation 3. Accelerated depreciation method which consists of including, in the first year of operation, in the operating costs of depreciation up to 50% of the value of the asset. Annual depreciation for the next financial years are calculated at remaining amortized value by straight-line method, by reference to number of utility use years left. In our case depreciation in the first year of operation will be: $50,000 \times 50\% = 25,000$ units. In the next years will include amortization costs $(50,000 - 25,000) / 4 \text{ years} = 6,250$ units.

If we were to visualize a statement of profit and loss account for the years N+1 – N+5, the three variants of depreciation, it would be as follows:

Extract from the profit and loss account

Elements	Straight-line amortization	Degressive amortization	Accelerated amortization
Turnover	1.000.000	1.000.000	1.000.000
Other operating incomes	50.000	50.000	50.000
Expenses with amortization N+1	10.000	15.000	25.000
Expenses with amortization N+2	10.000	10.500	6.250
Expenses with amortization N+3	10.000	8.166	6.250
Expenses with amortization N+4	10.000	8.166	6.250
Expenses with amortization N+5	10.000	8.166	6.250
Raw materials and consumables expenses	500.000	500.000	500.000
Personnel expenses	200.000	200.000	200.000
Other operating expenses	50.000	50.000	50.000
Accounting result N+1	290.000	285.000	275.000
Accounting result N+2	290.000	289.500	293.750
Accounting result N+3	290.000	291.834	293.750
Accounting result N+4	290.000	291.834	293.750
Accounting result N+5	290.000	291.834	293.750

Comments: It can be seen that by choosing the straight-line depreciation in first year the result is higher, therefore entity appears more efficient, financial situation will change in following years as can be seen from the above table.

II. Hungary

Situation 1. Straight-line depreciation method (relative): depreciable value = input value – residual value. Made by include in operating expenses of fixed amounts established in proportion to the utility life of the assets. In our case, straight-line depreciation relating to each year of use for equipment will be: $(50,000 - 5,000) \times 20\% = 9,000$ units.

Situation 2. Straight-line depreciation method (absolute) depreciable value = input value. Made by include in operating expenses of fixed amounts established in proportion to the utility life of the assets. In our case, straight-line depreciation related to each year of use for equipment will be: $50,000 / 5 = 10,000$ units.

Situation 3. Straight line by an amount (for tangible assets with established value by law, to 100,000 HUF \approx 340 € - 1,400 RON): $50,000 > 1,400$, the asset is greater than the amount prescribed by law, so can not use this method of depreciation.

Situation 4. Life years summation method: which consist in summing the years of life $S = 1+2+3+ \dots +n-1+n$, calculation of the annual depreciation rates by the following formulas: n/S $n-1/S$... $3/S$ $2/S$ $1/S$ and applying these rates to the depreciable amount of the asset. In our case, $S = 15$, the annual depreciation rates: $5/15$, $4/15$, $3/15$, $2/15$, $1/15 \rightarrow 16,666.67$, $13,333.33$, $10,000$, $6,666.67$, $3,333.33$.

Situation 5. Degressive method with decreasing rates by multiplication method: which consist on multiply the linear amortization rates with decreasing coefficients. In

our case: $20\% * 1.6 = 32\%$, $20\% * 1.4 = 28\%$, $20\% * 1 = 20\%$, $20\% * 0.6 = 12\%$, $20\% * 0.4 = 8\%$ → 16,000, 14,000, 10,000, 6,000, 4,000.

Situation 6. Degressive method with decreasing absolute amounts: which consist on including of decreasing absolute amounts to the operating expenses. In our case: 17,500, 15,000, 10,000, 5,000, 2,500.

Situation 7. Degressive depreciation by multiple linear amortization rates, calculated on the net book value: which consist on the multiplication of linear amortization rates with a coefficient and applied to the net book value. In our case: $2 * 20\% = 40\%$ → $50\,000 * 40\% = 20,000$, $30,000 * 40\% = 12,000$, $18,000 * 40\% = 7,200$, $10,800 * 40\% = 4,320$, the unamortized value will be record to amortization expenses in the last year, the amount will be 6,480 units.

Situation 8. Degressive depreciation, based on net book value with constant rate, which consist on calculate by the following formula the depreciation rate → $1 - \sqrt[n]{V_r/V_i}$ where n = useful life in years, V_r = residual value, V_i = input value. The amortization rate calculate by formula is applied to the net book value. In our case residual value is 5,000 units and the amortization rate is ~~17.500000~~ → $50,000 * 37\% = 18,500$, $31,500 * 37\% = 11,655$, $19,845 * 37\% = 7,343$, $12,502 * 37\% = 4,626$, $7,876 * 37\% = 2,914$ (the unamortized value 4,962 units will be record to amortization expenses in the last year)

If you were to visualize a statement of profit and loss account for the years N+1 – N+5, the eight types of depreciation, it would be as follows:

Extract from the profit and loss account

Elemente	1*	2*	4*	5*	6*	7*	8*
Turnover	1.000.000						
Other operating incomes	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Exp. with amor. N+1	9.000	10.000	16.667	16.000	17.500	20.000	18.500
Exp. with amor. N+2	9.000	10.000	13.333	14.000	15.000	12.000	11.655
Exp. with amor. N+3	9.000	10.000	10.000	10.000	10.000	7.200	7.343
Exp. with amor. N+4	9.000	10.000	6.667	6.000	5.000	4.320	4.626
Exp. with amor. N+5	9.000	10.000	3.333	4.000	2.500	6.480	7.876
Raw materials and consumables expenses	500.000	500.000	500.000	500.000	500.000	500.000	500.000
Personnel expenses	200.000	200.000	200.000	200.000	200.000	200.000	200.000
Other operating expenses	50.000	50.000	50.000	50.000	50.000	50.000	50.000
Accounting result N+1	291.000	290.000	283.333	284.000	282.500	280.000	281.500
Accounting result N+2	291.000	290.000	286.667	286.000	285.000	288.000	288.345
Accounting result N+3	291.000	290.000	290.000	290.000	290.000	292.800	292.657
Accounting result N+4	291.000	290.000	293.333	294.000	295.000	295.680	295.374
Accounting result N+5	291.000	290.000	296.667	296.000	297.500	293.520	292.124

*1. Straight-line amortization (relative), 2. Straight-line amortization (absolut), 4. Life years summation method, 5. Degressive method with decreasing rates by multiplication method, 6. Degressive method with decreasing absolute amounts, 7. Degressive depreciation by multiple linear amortization rates, calculated on the net book value, 8. Degressive depreciation, based on net book value with constant rate.

Comments: It can be seen that by choosing different methods of depreciation accounting result is different in each year, therefore entity's performance changes from one period to another, the result fluctuation in the five years, influenced by the different depreciation methods, can be up to 5% or sometimes even greater/higher, so we can say that if the expenses with amortization of the fixed assets occupy significant percentage of total expenses of the entity, the amortization method can significantly influence the accounting result.

Until now we presented the influence of amortization methods over profit and loss account, and now we analyse the effects of depreciation methods over the balance sheet, respectively influence over the net book value of assets presented in the balance sheet.

I. Romania

Extract from the Balance sheet

Elements	Straight line amortization	Degrressive amortization	Accelerated amortization
Expenses with amortization N+1	10.000	15.000	25.000
Expenses with amortization N+2	10.000	10.500	6.250
Expenses with amortization N+3	10.000	8.166	6.250
Expenses with amortization N+4	10.000	8.166	6.250
Expenses with amortization N+5	10.000	8.166	6.250
Assets net value N+1	40.000	35.000	25.000
Assets net value N+2	30.000	24.500	18.750
Assets net value N+3	20.000	16.334	12.500
Assets net value N+4	10.000	8.166	6.250
Assets net value N+5	0	0	0

II. Hungary

Extract from the Balance sheet

Elements	1	2	4	5	6	7	8
Exp. with amor. N+1	9.000	10.000	16.667	16.000	17.500	20.000	18.500
Exp. with amor. N+2	9.000	10.000	13.333	14.000	15.000	12.000	11.655
Exp. with amor. N+3	9.000	10.000	10.000	10.000	10.000	7.200	7.343
Exp. with amor. N+4	9.000	10.000	6.6676	6.000	5.000	4.320	4.626
Exp. with amor. N+5	9.000	10.000	3.333	4.000	2.500	6.480	7.876
Assets net value N+1	41.000	40.000	33.333	34.000	32.500	30.000	31.500
Assets net value N+2	32.000	30.000	20.000	20.000	17.500	18.000	19.845
Assets net value N+3	23.000	20.000	10.000	10.000	7.500	10.800	12.502
Assets net value N+4	14.000	10.000	3.333	4.000	2.500	6.480	7.876
Assets net value N+5	5.000	0	0	0	0	0	0

Comments: The used amortization method should reflect how the future economic benefits of an asset is expected to be consumed by the entity. If the entity uses creative accounting techniques it will not take into account the principle of consumption of the benefits and will be used an amortization method which best reflects the wishes of the management.

Example no. 2.: In this example we analyze the impact of choosing different periods of depreciation on the financial statements and accounting results. Keeping the dates from example no. 1 we suppose that the entity "Alfa" bought a machine, the input value is 50,000 units. The amortization method is the straight-line method. We will analyze two cases, first when the entity establishes utility use life of the asset for 5 years and in de second case when the utility use life for the same equipment is 8 years, looking for the effects over the balane sheet and tel profit and loss account in both cases.

Situation 1: Utility life of the machine is 5 years, so the depreciation relating to each year: $50,000 \times 20\% = 10,000$ units.

Situation 2: Utility life of the machine is 8 years, so the depreciation relating to each year: $50,000 \times 12.5\% = 6.250$ units.

Comments: It is evident that the choice of machine life period has a greater positive influence over the results, although the performance of the machine is the same in both cases, therefore external users interested in the entity's financial information

must consider these aspects in a more precisely manner as possible, objectively to determine the useful life of the assets. Also the choice of a greater period of useful life of the equipment influences the economic returns, diminishing returns.

CONCLUSIONS

Based on the case study performed we confirm that the depreciation method and duration of useful life has a significant influence on the accounting result and on the net book value of fixed assets.

Therefore, if entities use of creative accounting, the accounting result and the fixed assets net book value presented in the annual financial statements may differ significantly from fair value of them.

It is the auditor's responsibility to detect these creative accounting techniques, but as creative accounting described above operates at the level of nuance – area – where can't bring motivated accusations of breach of professional rules or laws. Therefore, during audit mission auditor must audit the accounting estimates used by the entity of utility time (useful period), the expected rhythm of consumption of future economic benefits of tangible assets (depreciation method) and the residual value.

Finally, the auditor should issue an opinion about the entity's estimates, if they are or not in conformity with applicable financial reporting framework.

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