Abstract. *The process of componentization of value is a subject matter that acquired in this article a meaningful benchmark regarding the comprehension of the subject and practical implementation possibilities, the process of attaining the componentization being called apportionment. The necessity of value apportionment appeared along with the increased concern of the State regarding the tax collection process, where the apportionment method was used in order to individualize the item targeted by the taxation operation. Componentization in three steps is a new technique suggested within this article. Its implementation consists in: step 1 – establishing the component whose value is determined in the end, as a residual value, in the componentization process; step 2 – identifying and estimating the value of the components as well as applying the residual method; and step 3 – checking the results of componentization followed by the correlation of inputs used within the process. In order to illustrate the componentization method in three steps, the market value of Opera Plaza Hotel from Cluj was used as an example.*

Keywords: apportionment, componentization, valuation, hotel, value.

COMPONENTIZATION IN THREE STEPS. CASE STUDY: OPERA PLAZA HOTEL

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1. Introduction

The reasoning behind writing this article is the necessity of a thorough going study on the componentization of the value of an enterprise or an asset, as well as, the apportionment of the value of each component considering the fact that there is no unique vision over this process until the present time.

We named the process of breaking the value in its compounding elements, *componentization*, while the action through which the process is performed is called *apportionment*.

There is no definition of the word componentization in the Romanian Explanatory Dictionary; therefore by componentization, as it is used in this study, we understand the breakage of the value of a whole on each of the compounding element. We usually name this action *value allocation*.

The necessity of value allocation appeared along with the increased concern of the State regarding the tax collection process, where the apportionment method was used in order to individualize the item targeted by the taxation operation.

Considering that the componentization of value is required especially for income producing assets (IPA)[1] which include real estate, movable assets as well as a complex unit of intangible assets, the tourism related real estate was found as the most adequate in order to thoroughly study the value componentization and to exemplify the componentization method.

2. Current status of research in this field

There are still controversial points of view regarding the value allocation for an entity`s compounding assets. Usually there is a wide belief that the componentization process only includes a computation with the breakage of the total value, without presuming an individual assessment process of each component, hence a professional reasoning of the valuer. If there was just a simple mathematic exercise, the result of the valuer`s work would not be called "Valuation report", but "Valuation exercise". Harper (2008) shows that in order to fulfil the IFRS amortization requirements of the depreciable assets, valuers specialized in hotel valuations are being asked to artificially allocate the value between the different hotel components, but although this is not a formal valuation, a value allocation requires solid professional knowledge from the valuer and it also require the application of the national professional standards regarding allocation. This point of view prevailed and is maintained only in the points of view of the valuers which are not familiar with recent accounting rules, who claim that all the assets and debts of an entity to be registered at fair value, not just for a business combination (IFRS 3, Business combination), but also for allowed revaluation of assets, according to the adequate International Accounting Standards, respectively IAS 16, Tangible assets, IAS 38, Intangible Assets, IAS 36, Assets depreciation, IAS 40, Real Estate Investments (IASB 2011).

For hotels, hospitals, healthcare centres, restaurants and other facilities, real estate type of assets are integrated parts of a going concern entity and the real estate is rarely sold independently from the entity. The separation of the market value of the land and building from the total value of an entity could be demanding, but this separation is feasible and often required by the fiscal legislation. Also, in some entities, such as hotels, motels, hospitals and healthcare centres, the separation of the income generated by the intangible assets from those generated by the real estate is unclear. Hitchner (2003, p. 893) demonstrates that "by allocating the purchase price, the analyst can separate the intangible assets from the real estate".

Some authors assert that hotels include four components: land, land improvements, intangible assets and movable assets (any assets other than real estate) (Rushmore and Rubin, 1984). When a hotel or motel is being valued on the purpose of assessing the real estate (land and building), the valuer has to break the total value of the property on all four components. In most of the cases the hotels and motels are valued using the income capitalization approach, resulting in the market value of the entity based on the stabilized income of the entity. Hence, by starting with a stabilized net income which is the output of all four components and then deducting the income attributed to the movable and intangible assets, we obtain a residual income associated only to the real estate property, which is capitalized using an appropriate capitalization rate, in order to obtain the value of the real estate property.

There are authors asserting that the problem with allocating the value is mainly given by the contradictory terminology and the lack of a value allocation procedure (Lennhoff, 2004). As well as Wolverton et al. (2002), Lennhoff clears the problems with the terminology and with the exemplification of a value allocation model on a hotel. The valuers must adhere to the USPAP (Uniform Standards of Professional Appraisal Practice) requirements, issued by The Appraisal Foundation. Standard`s Rules must bring in new methods, such as allocating or separating the value of the assets apart from the real estate property component. When it is requested to determine the fair value of the real estate property, the intangible assets and any others movable assets have to be identified, quantified, and removed (Lennhoff, 2004).

Tax attorneys strive to bring reasons to exclude the value of the business from the valuation for the real estate[2]. The value of an operational entity comprises the value of the real estate property, the movable assets such as furniture, fixtures and equipments, as well as the value of the intangible assets (Siegel, 2005).

Despite their efforts, the attorneys managed to obtain the authorization to divide the value of the TIA (total intangible assets) but only for healthcare centres and hotels, The New York Court of Appeal admitting long time ago, ever since 1945, along with the sale of Paramount hotel, the existence of TIA and its separation from real estate for hotels. Also, there were other cases in court of TIA value breakage from the total value of the hotel: in 1963 for Hilton hotel, in 1992 for Dann hotel, in 1995 for Blue Hill inn, and in 2004 for Tarrytown Hall Centre healthcare. Siegel (2005) mentions that legal precedents from New York did not progress towards the enacting

of the valuation methods in order to separate the value of the shopping centres; although we know that the value is there, we cannot calculate it.

The issue of the separation of the real estate value is reiterated by Dowell (2011) because even until the present time there is no recognised practice by any valuation or judicial authority in solving this issue. Traditional hotel valuers accept as mortgage for a loan only the real estate, but when the creditors grant a loan, they take into consideration all the assets, tangible and intangible, because in case of non-payment they prescribe the mortgage and take over all the assets, not only the real estate. Also, creditors prefer selling the property with a major brand, in case of a mortgage execution. Another problem is that *"traditional real estate appraisers prefer deducting the management and royalty fees in order to remove the value of TIA because it is easier and it was given by a brandname hotel"* (Dowell, 2011, p. 168).

When a hotel is being sold, the acquisition includes: real estate, furniture, accessories and equipments and total intangible assets. The share of the value belonging to movable assets is allocated in a simple way by determining the net replacement cost, but the part that is very hard to estimate is the value of total intangible assets (Belfarge, 2001). The allocation method is very important because the owners do not have to pay taxes on the non real estate components, but only on real estate. Hence, Belfrage (2001) compares two hotel chains which are similar from the physical point of view, with the difference that one of them does not have the management component, franchise and assembled workforce, in order to determine the total intangible assets belonging[3] to a hotel.

In order to determine the value of management, of assembled workforce and the value that comes as a benefit for being affiliated with a hotel chain, RevPAR indicator (revenue per available room) was used, which represents the incomes per available room, between 1997-2000. Following the study performed, it was noticed that the hotels having an experienced management and that are affiliated to a known hotel chain have a higher value of the RevPAR indicator. In order to establish an appropriate allocation method of the value of the hotel on total intangible assets it is used the capitalized value of the net annual income obtained due to the affiliation and management competence. A high quality affiliation and the management costs contribute with a higher percentage to income generation. The incomes resulting from the franchising represent the difference between the incomes generated by a certain affiliation and the franchise costs.

Thus, different variation levels of value contribution are measured, depending on the success of an individual hotel (which is not affiliated). This method does not offer a clear background on determining the value of a hotel, but can be used as a starting point in determining it, being rather useful in the separation of the component value of the real estate property.

The previous idea was resumed in another study, where it was presented a strategy for the estimation of the value of total intangible assets by comparing the hotel market value with the value allocated to the intangible assets identified as a

result of the affiliation of two hotels from the same business sector, valued at the same valuation date (O'Neill and Belfrage, 2005).

The affiliation is realised with international hotels, which are in direct competition. The study demonstrated an allocation method of the value of the identifiable intangible assets related to the affiliation. The method incorporates a cost-benefit analysis, capitalizing the real net actualized incomes attributable to the franchise, after the deduction of the franchise-related costs. The method is market based as it uses information from the reports issued by the franchising companies for estimating the revenue attributable to the affiliation. Following the comparison of the two hotels it was noticed that one of the hotels has a higher value of the intangible assets compared to the other one, due to the franchise that generates higher revenues per room. Regarding the first hotel, the value is higher rather on the real estate property than on the affiliation due the location features.

The research establishes that there exists a value for identifiable intangible assets, and that the incomes obtained due to this affiliation overcome the affiliation costs. When the affiliation costs are close to or exceed the incomes obtained due to the affiliation, it results that an intangible asset was not generated.

The issue of allocating the property value on land, improvements and intangible assets, was introduced 17 years ago, taking into consideration that only land and buildings are subject to taxation. *"One reason brought by the proponents of the separation of the total value of an entity into land, buildings and the value of the intangible assets is that the real estate property (land and buildings) value should be equal to the cost of developing a similar building on a similar nearby plot of land"* (Miller et al., 1995, p. 207). In their study, the three authors try to explain why, after the entrepreneurial profits have been identified, excess productivity becomes logically attached to the land, although the tendency to attach it elsewhere is high. They wonder whether the discrepancy observed between renewed rents and the new rents for new lessees could only be explained by the presence of the value of intangible assets in these shopping centres. They seek to demonstrate that the value of the existent business relations and the variable costs of relocation create an impulse for the existing rents to remain the same. This impulse allows the shopping centres to charge more when renewing the rent but creates the need for the shopping centres to bring more lessees which shall confer compensatory incentives for relocation. There are three conclusions regarding the residual value of the land in this article: the value of a potential shopping centre site is based on a second best productive use of land in a certain area, bordering plots of land are considered substitutes even with a shopping centre nearby, and any added value of the location that overcomes the cost of the improvements and the cost of substituting the site is attributed to the entrepreneurial value for business decisions, like the design, the mix of rents and management. The orientation towards results should be a constant concern both for the management of the company and the employees (Păunescu et al., 2008, p. 109).

Uniform Standards of Professional Appraisal Practice claims that valuers should do a precise allocation according to standard`s guidelines which refer to this

process so that the allocations represent objective opinions on the value of the components.

In the allocation process it is required to know the national accounting legislation and its requirements regarding the valuation of individual assets on one hand, and the valuation as components in the total value of an entity on the other hand.

Also, the knowledge of the "aggregation level" concept (Pomykacz, 2010) is necessary, respectively the main asset aggregation condition to which a FTE (Functional Tourism Entity) is traded, like an ordinary package of combined assets, named as "a functional entity".

Examples of perception on the aggregation level are the ones regarding restaurants. These can be assessed either only at the real estate property level, or at the real estate and movable assets (equipments, motor vehicles, furniture and other small inventories) level, or at the market value of the total assets for M_vTA_{FTE} (Market Value of Total Assets belonging to a Functional Tourism Entity) level.

3. Research methodology and database used

The problem of allocating the value of the real property is exclusively and briefly presented for the real estate only within valuation standards which relate to valuation for financial reporting purposes, when talking about the necessity of individual amortization for any real estate component, on one hand, and determination of the taxing base for these components, on the other hand.

The main purposes for which the componentization process should be imposed are:

- Valuation for financial reporting where individual value of the components registration is required;
- Assessment of goodwill in case of IFRS 3;
- Valuation for taxation purposes;
- Valuation for mortgage lending purposes when the mortgage is established only for land and buildings, so the value of these components should be separately presented;
- Valuation for insurance;
- Assessment for external (economic) obsolescence.

The clear demarcation of all five assets` classes is of a great importance, and whose assessment has to be performed by the valuer within the allocation process of M_vTA_{FTE} based on the assumption that the FTE is completely endowed and it possesses all mandatory authorizations, licences and certificates for work.

The real estate property has many definitions, the common feature being the permanent and immovable condition of its elements. A more elaborate definition of the component elements of the real estate is: *"the land and all the elements which are a natural feature of it, for example trees and mineral resources, elements that have been attached to the land, such as buildings and endowments from the site and all the*

elements permanently attached to buildings, such as mechanic and electric equipments which insure the functioning of the building, both in the basement area and aboveground" (ANEVAR, 2011, p. 106). Therefore, essential real estate components are land, permanent improvements, buildings and embedded equipments and networking such as water plumbing, sewage, electric wirings, heating, air conditioning system and elevators.

Detailed knowledge of the real estate components is very important for an accurate valuation using the cost and comparison approaches, so that a double comprisal of components value or omissions is avoided.

This kind of errors refer to either excluding land improvements in determining the site`s value or double counting some of the values of the components, which were initially movable assets (for example, cables, pipings, switches, air conditioned, chandeliers, built-in refrigerators, and so on) in both movable assets and real estate components.

The land. From a legal point of view, the ownership of land includes not only its surface, but also its underground surface and the aboveground, within the legal limitations. The owner of the land can develop above and underground the land all the constructions, plantations and endowments that he finds suitable, within the legal limitations. He is obliged to respect the rights of third parties over the mineral resources, spring wells and underground water, underground workings and fittings, and so on, within the limitations and regulations determined by law.

From an accounting perspective, land, land improvements and buildings are separable assets and they are individually registered in the accounting books, even when acquired together. The accounting for the land is kept on two classes: land and land improvements. For this reason, M_vTA_{REOB} allocation (Market Value of Total Assets of a Real Estate Operating Businesses) has to be made independently for land and for the land improvements. More than that, the value of the land improvements is depreciable, while the value of land is not because of the indefinite lifetime of the land.

Land improvements. This real estate, respectively M_vTA_{REOB} component contains, but is not limited to: fences, greenscapes, ornamental trees, pavement, ponds, culverts, railways with a standard track width on site, resistance walls, alleys, underground utilities, footways and borders, drilling, private ways, footbridges, bridges, viaduct, passage, subway, containers, embankment, logjam, canal, channel, duct, lighting systems of location. Individual valuation of the land improvements is specifically required by the accounting regulations in force, which stipulate that for the land improvement investment expenses linear depreciation over a period of 10 years should be applied.

Buildings. In the Romanian Fiscal Code the building is defined as *"any construction placed above and/or under ground, irrespectively of its denomination or current use, and has one or more rooms serving for sheltering people, animals, objects, products, materials, fixtures, equipments and other similar items, and its basic structure elements are the walls and the roof, irrespective of the materials it was built*

from. The room represents the area inside the building" (Updated Fiscal Code for 2012 year, Art. 249(5)). According to fiscal and accounting legislation from Romania buildings follow the linear depreciation method.

Movable assets. Movable assets are "moving" tangible objects of an operational entity, detachable from the real estate property, respectively machinery, other fixtures, equipments, furniture, vehicles, office automation, small inventories, artworks, antiquities, jewellery, collections and so on. There are also categorized as movable goods the electromagnetic waves, as well as any kind of electric power source, stored and distributed by any person and placed in its service in accordance with the legal regulations, irrespectively of the movable or immovable nature of their source.

Regarding the equipments, respectively machinery, tools and fixture, as well as for computers and their peripheral equipment, from the accounting treatment point of view the owning entity can opt for the linear, accelerated or digressive depreciation method, and for any other depreciable fixed asset it can choose linear or digressive depreciation method.

Total intangible assets and residual intangible assets.

According to the national accounting regulations recently approved by the Ministry of Public Finance (2009), in Romania the following (intangible) assets can be recognized:

- Set-up costs;
- Development costs;
- Concessions, patents, licenses, trademarks and similar rights and assets, if these were acquired by legal and honest means;
- Goodwill, if it has been acquired by legal and honest means;
- Advances and intangible assets in transit.

Identifiable intangible assets only linked to the real estate property are: the building permit, land occupancy and land use ratio, REOB localization, the exploitation rights, such as: the right to overfly, the right to use water and mining exploitation (through a franchising licence over the works performed under and/or above ground in order to extract the mineral resources, to process and deliver them in particular shapes), servitude right, underground servitude right, etc., and also, all kind of preferential contracts that REOB has signed with the suppliers, insurance companies, different service providers. Such favourable features as the location in an exclusive area, mountain or seaside view, remarkable high traffic position.

After describing the main components of value, which are subject to value allocation, we propose the implementation of the three steps componentization method:

Step 1 – establishing the component whose value is assessed in the end as a residual value, in the componentization process.

Step 2 – identifying and estimating the value of the components, as well as the application of the residual technique;

Step 3 – verifying the results of the componentization wherefrom to result the correlation of the inputs used during the process.

We further describe the stages that can be included in each of the proposed steps.

The componentization process has, as a final result, the components` values, and the computation procedure used in determining the value is the residual technique. From a known value of an entity the known value/known cost of the components is deducted and the remaining value represents the value of the unknown (residual) component. Thus, the residual component is defined within *step 1*, and can be either the real estate value (often the value of the building for taxation purposes) or the intangible assets' value, including the goodwill`s (according to IFRS 3, Business combinations).

Within *step 2* the components are assessed and residual technique is applied, based on which the known value of the component from step 1 results. There are two possibilities for applying the residual technique, respectively:

a) using the components` market value. We deduct the market value or the net replacement cost of the other components from the total market value of a tourism entity, the remaining residual value being assimilated to the value of the residual component (either the real estate value, or the total intangible assets value – TIA);
b) using the stabilized income, allocated on components depending on the return rate required by the investments in these components; the residual income determined as a difference between the entity`s total income and the incomes allocated on the rest of the components is the income generated by the residual component (either the real estate property, or the total intangible assets – TIA). By capitalising the residual income it results the residual component`s value.

It is very important to specify that, for any of the two techniques above, the final result must be the components' value. This value results directly based on „ a)" technique, and indirectly based on „b)" technique. By resulting indirectly we mean that the result of the residual technique in step „b)" is the income associated with the residual component. Converting this income into value is realized by capitalizing it with an appropriate capitalization rate.

At the end of this step the values of all the components will be obtained, including the component established in step 1.

Basically, the componentization process ends after step 2. We consider that this decision procedure should not end at this step. We suggest *step 3* should be covered also, wherein the results from step 2 are checked and this way the confirmation that the componentization process was correctly applied and the results are reliable is realized.

The proposed review proceeding is to cross check the two presented residual technique methodologies, respectively „a)" and „b)", so that the results from one componentization method to be confirmed by the results of the second method.

The purpose of this research is to estimate the market value of Opera Plaza Hotel from Cluj-Napoca and its equity as at 31 December 2010, as well as allocating this value on its components. The type of value estimated is the market value.

The assessment of the market value for Opera Plaza Hotel from Cluj was realized as at 31 December 2010. The exchange rates used for the financial statements' conversion are the official rates published by the National Bank of Romania. The average exchange rate used for 2010 is 4.2099 RON/EUR and the exchange rate at the end of the period is 4.2848 RON/EUR.

The estimation of the market value of the equity of Opera Plaza at 31 December 2010 is based on the income approach, respectively on the Discounted Cash Flow method.

In order to estimate the market value we used the following information:

- un-audited historical financial statements for the following closed financial years, 31 December 2009 and 31 December 2010;
- particular income position for 2008-2010;
- forecast business plan for 2011 to 2016;
- financial and operational hypothesis, as well as publicly available information.

In order to issue this research, the company's financial information was adjusted. General information (inflation rate, interest rate, market risk premium, gross domestic product, etc.) as well as all information used within this valuation were obtained from available public sources which were published as at valuation date (National Bank of Romania, EIU, National Prognosis Commission, Damodaran, Frankfurt Stock Exchange data base).

4. Componentization in three steps of the market value of Opera Plaza

Further we will apply the componentization in three steps method and obtain the market value of Opera Plaza hotel based on the income approach. We will focus on the methodology of componentization in three steps and not on the estimation of the value of hotel, respectively on the estimation of the main inputs used during the componentization process.

Therefore, we remind that:

- *The Market value of the invested capital (MvIC)*, resulted from the valuation process is of 5,319,640 Euro.
- *Interest bearing debts (IBD)* have a market value of 1,311,263 Euro.

The Market value of the equity resulted is MvE = MvIC – IBD, thus,

MvE = 5,319,640 – 1,311,263 = *4,008,377 Euro*

Remark – considering that the value of cash and short-term investments is a known parameter – of 1,302,563 Euro, these were excluded from the equity, respectively from the componentization process.

Taking into consideration the cost of equity of 17.28% and the perpetual income growth rate of 3%, it results that the capitalization rate used for the estimation of the *steady income* is 14.28%.

Thus, *the steady income* is *572,396 Euro* (which is 4,008,377 × 14.28%).

The three steps of *componentization in three steps* are:

Step 1 – Establishing the component whose value is determined in the end in the componentization process as a residual value. The targeted component in this application is: *goodwill (residual intangible assets).*

Step 2 – Identification and estimation the value of the components and the application of the residual technique. This step comprises three sub-points:

a) Identification of the components. The components that contribute to the equity`s value, less the component identified in Step 1 are: the land, the constructions, the equipments and the endowments and the management agreement (as identifiable intangible asset).

b) Estimation of components' value.

For the *land* valuation we retain the following information:

- land surface is 2,311 sqm;
- market value of land in the surrounding area is 200 Euro/sqm.

Market value of the land is therefore 462,200 Euro.

For the *building`s* valuation we retain the following information:

- useful area is 6,322 sqm;
- gross built area is 7,586 sqm;
- the replacement cost of the building with a new, equivalent building is 550 Euro/sqm;
- estimated degree of physical deterioration is 30%;

The value of the building obtained using the cost approach is: *2,920,764 Euro.*

For the valuation of the *equipments* it was taken into consideration that these were recently revalued and that their fair value is valid at the valuation date. Therefore, the value of these equipments is: *438,115 Euro.*

For the valuation of the *management agreement* we retain the following information:

- the advantage offered by the management agreement compared to the market average is of 2.5% from the steady income, therefore it represents an annual cost saving of *572,396 × 0.025 = 14,309.91 Euro;*
- the capitalization rate[4] used to convert the profit generated by the management agreement into value is of 25%;

The resulting value of the management agreement is: 57,240 Euro (14,309.9/0.25).

c) Application of the residual technique. Based on the information presented above, the value of the component identified in Step 1, respectively the *goodwill,* can be computed by applying the residual method. The summary of the components` value is presented in the Table 1:

Table 1

Application of residual method

Component	Value	Measurement unit
Market value of equity	4,008,377	Euro
Out of which:		
Land	462,200	Euro
Building	2,920,764	Euro
Equipments and endowments	438,115	Euro
Management agreement	57,240	Euro
Goodwill	130,059	Euro

Thus, the prompted value is *130,000 Euro* (rounded). To validate this value and to finalize the componentization in three steps process, the final step proposed in this study follows.

Step 3 – Checking the componentization results. The purpose of checking is to trace the correlation between the values of the components resulted from the componentization in three steps process. The checking method suggested is crosschecking the two possible allocation methods, respectively 1 and 2, so that the results of one componentization method to be confirmed by the results of the other method. In the above-simplified application, considering that we performed the allocation based on the market value of the components, we will perform the checking through the use of the allocated steady income and the adequate capitalization rates of each component. One version of the proposed technique consists in the following two phases:

Stage 1

Starts from the steady income (572,396 Euro);

Each component's allocated income is deducted from the stabilized income and computed by multiplying the adequate capitalization rate with the estimated value obtained at step 2, sub point b, for each of the compounding element. We used the following capitalization rates: 7.5% for land, 13.5% for buildings, 19% for equipment and facilities and 25% for the management agreement.

The income allocated to goodwill was computed using the residual method by deducting each component's income from the steady income.

The resulted value is capitalized with a rate of 35.5% in order to obtain the goodwill's value (Table 2).

It is noticeable that the value computed through this method 129,229 Euro is similar to the one obtained in Step 2, sub point c, respectively 130,059 Euro. Therefore, *the first verification stage confirms the result* calculated following the componentization process.

Table 2

Check out of componentization results- stage 1

Income type	Result	Measurement unit
Stabilized annual income	572,396	Euro
From which:		
Land allocated income	34,665	Euro
Building allocated income	394,303	Euro
Equipment and facilities allocated income	83,242	Euro
Management contract allocated income	14,310	Euro
Goodwill (residual) allocated income	*45,876*	Euro
Goodwill capitalization rate	35.5%	
Goodwill	*129,229*	Euro

Stage 2

This stage consists in verifying the capitalization rate levels utilized in stage 1 and implicitly the correlation between the measures used during the analysed componentization process. Therefore, based on these capitalization rates and on each components weight in the equity value the average capitalization rate related to the components is computed. Moreover, the obtained value should be approximately equal or very close to the capitalization rate used in calculating the stabilized income, respectively 14.28%. The crosschecked result is presented in the table below:

Table 3

Check out of componentization results – stage 2

Component	Value (Euro)	Percent of total amount	Capitalization rate (CR)	% of total CR
Land	462,200	12%	7.5%	0.8648%
Buildings	2,920,764	73%	13.5%	9.8370%
Equipments	438,115	11%	19%	2.0767%
Management contract	57,240	1%	25%	0.3570%
Good will	130,059	3%	35.5%	1.1519%
Total control	*4,008,377*	*100%*		*14.2873%*

It can be observed that the weighted average capitalization rate related to the components is equal to the capitalization rate used for converting the annual stabilized income into entity's market value (14.28%).

Thus, following the cross checking from step 3 it resulted that the inputs used within the process are inter correlated and that the 3-step componentization process led to accurate values of the components.

Another possible controlling method would be that within step 3 the capitalization rate associated with the component whose value is being determined during the componentization process (in this case, the goodwill) should be computed.

This check up could be obtained by taking into account the inputs used in the estimation of the component's value in step 2 and the capitalization rate used for calculating the stabilized income.

The verification key in this case is given by the resulted capitalization rate (35.5%), which should be comprised within the above-mentioned ranges, both in terms of size and position.

5. Conclusions

The value componentization as a process is a subject that, through the issues presented in this article, has acquired a meaningful benchmark regarding the comprehension of the subject and practical implementation possibilities, while the complexity of the tourism industry totally explains the fact that the componentization process could be better analysed when using hotels as analysis subjects.

The componentization in three steps is a process suggested in this article and it was illustrated on Opera Plaza Hotel. This article is meant to be a complete and logical algorithm that provides credibility to the componentization process. Hence, the proposed steps are: step 1 – establishing the component whose value is determined in the end, as a residual value, within the componentization process; step 2 – identifying and estimating the value of the components as well as applying the residual technique; and step 3 – checking the componentization results followed by the correlation of the inputs used within the process. We consider that the implementation of this algorithm guides the person that makes the allocation to pass through all necessary stages, and the users of the allocation results to follow the methodology of the process and to obtain confidence in the output resulted.

Notes

[1] TRP include: hotels, motels, camping, restaurants and bars, coffee shops and buffets, golf courts, fitness clubs, amusement parks, casinos. Other similar real estates are: gas stations, recycling centers, airports, car washing shops, nurseries, kindergartens, retiring homes, theatres, mills, funeral homes and so on.

[2] Business enterprise value is a value raised by intangible assets, such as marketing and management skills, trained workforce, trade names, franchise, patent, license.

[3] Includes the affiliation to a hotel chain, the know-how in the management field and the trained workforce.

[4] The capitalization rate was selected depending on the asset type, subject to valuation, and depending on the cash range and cash equivalents, 3.8% for land, 7.16% for buildings, 12.20% for equipments and 15.40% for identifiable intangible assets and goodwill.

References

Belfarge, E.E. (2001), "Business value allocation in lodging valuation", *The Appraisal Journal*, Vol. 69, No. 3, pp. 277-282

Dowell, T.B. (2011), "Hotel investment analysis II: What's the real deal?", in Lennhoff, C.D. (ed.), *A Business Enterprise Value Antology*, Second Edition, Appraisal Institute, Chicago.

Harper D. (2008), "Valuation of Hotels for Investors", *Estates Gazette*, London

Hitchner, R.J. (2003), *Financial Valuation. Application and Models*, John Wiley & Sons, Inc., New York

Lennhoff, C.D. (2004), "Intangibles are the real thing", *Probate & Property*, Vol. 18, No. 5, pp. 34-29

Miller, G.N., Jones, S.T. and Roulac, S.E. (1995), "In Defence of the Land Residual Theory and the Absence of a Business Value Component for Retail Property", *Journal of Real Estate Research*, Vol. 10, No. 2, pp. 203-216

O'Neill, W.J. and Belfrage, E.E. (2005), "A strategy for estimating identified intangible asset value: hotel affiliation contribution", *The Appraisal Journal*, Vol. 73, No. 1, pp. 78-86

Păunescu, C., Purcărea, I. and Pantea, C. (2008), "Managing quality in organizations through performance measurement", *Management & Marketing*, Vol. 3, No. 1(9), pp. 105-116

Pomykacz, M. (2010), " The relationship between total property and its components, with the three valuation approaches", *Valuation Journal*, Vol. 5, No. 1, pp 58-85

Rushmore, S. and Rubin, E.K. (1984), "The valuation of hotels and motels for assessment purposes", *The Appraisal Journal*, Vol. 52, No. 2, pp. 270-288

Siegel, D.W. (2011), "Separating business enterprise value from real estate value", in Lennhoff, C.D. (ed.), *A Business Enterprise Value Anthology*, Second Edition, Appraisal Institute, Chicago

Wolverton, L.M., Lennhoff, C.D., Vernor, D.J. and Marchitelli, R. (2002), "Allocation of Business Assets Into Tangible and Intangible Components: A New Lexicon", *The Appraisal Journal*, Vol. 70, No. 1, pp. 46-52

ANEVAR - National Association of Appraisers from Romania (2012), "Valuation Guide, Methodological Valuation Guide", "Word book IVS 2012", "Methodological approach of some definitions and terms from IVS 2011 explained by ANEVAR", *ANEVAR*, Bucharest

Ministry of Public Finance (2006), "Decree no. 3055 from October 2009 for acceptance of accounting Regulation according to European directions". *Official Gazette*, No. 766, Part I, Year 177 (XXI)

Romanian Government (2012), "Updated Fiscal Code for 2012 according to OUG No. 15/2012", *Official Gazette*, Part I, No. 306/8 May 2012, Bucharest

*** http://pages.stern.nyu.edu/~adamodar/ - Damodaran

*** www.bnro.ro – National Bank of Romania

*** www.boerse-frankfurt.de - Bursa Frankfurt

*** www.insse.ro/cms/rw/pages/index.ro.do - INSSE

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