STUDY ON IMPROVEMENT OF VALUATION CONSISTENCY

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Abstract

Consistency considered as one of the main governing principles of valuation profession where consistency issues in valuation were raised in several instances when the valuation furnished for lending institutions and assessing compensation for acquired lands. Cost base methods are more popular among the valuers in the event of assessing market value for the aforesaid purposes. The system of estimating land values were developed properly in Sri Lanka but the system of adopting rates for the improvements/constructions were not much systemized and this leads to arise consistency issues in the valuation. The study is forced to improve consistency in capital valuation when using cost base method. Literature review that there was no unique building classification and no proper market study on building rates apply for the valuation. The study proposed cost base building classification and Building Cost calculator to derive building rates as a guideline for the valuer.

Keywords*:* Consistency; Building Classification; Rebuilding Cost

Introduction

As per RICS (2017) Transparency, Consistency and the avoidance of conflicts of interest are considered as main governing principles of valuation profession. Oxford learner's Dictionary defined Consistency as the quality of always behaving in the same way or of having the same opinions, standard, etc where improvement of the consistency is more important to ensure best service towards end users. Consistency issues were raised in several instances where the valuation furnished for lending institutions and assessing compensation for land acquisitions. Consistency improved the trust of the profession, (Chamber of commerce 2020). Accordingly, improvement of consistency of valuation is important for strengthen the profession.

Cost based method, income method and comparable method are commonly used for the capital valuation in Sri Lanka. Cost base methods are more popular among the valuers in the event of assessing market value for the mortgage purpose and assessment of compensation, where those areas covers significant market share of the profession. Land value and the improvement cost are two significant parts of the cost base valuation where the system of estimating land values were developed properly in Sri Lanka and land values are derived with analyzing market evidence in a proper way but the system of adopting rates for the improvements/constructions were not much systemized and this leads to arise consistency issues in the valuation derived by the valuers.

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Objectives of the study

01. To identify the area that has to improve the consistency of valuation
02. To improve the consistency of capital valuation when using the cost based method of valuation

Hypothesis

The present practices of cost based methods are having consistency issues and consistency could be improved to strengthen the profession.

Literature Review

Important of Consistency

Lending institutions and government acquired land owners are major parties that raised consistency issue in valuation. I have observed that there were several cases raised evidences again consistency issue during the hearing of the land Acquisition board of review. Credit officers of lending institution were highlighted consistency issues in capital valuation in several forums.

Cost Base Method of Valuation

Cost Approach

As per IVSC (2017) The cost approach provides an indication of value using the economic principle that a buyer will pay no more for an *asset* than the cost to obtain an *asset* of equal utility, whether by purchase or by construction, unless undue time, inconvenience, risk or other factors are involved. The approach provides an indication of value by calculating the current replacement or reproduction cost of an *asset* and making deductions for physical deterioration and all other relevant forms of obsolescence.

There are three cost approaches

01. Replacement cost method – Cost of similar assets offering equivalent utility
02. Reproduction cost method- Cost to recreating a replica of asset
03. Summation method –By addition of the separate value of its component parts

Cost Considerations

In further IVSC (2017) stated that, cost element should include in direct costs and indirect cost that would be required to replace of recreate that assets as at valuation date. Depreciation adjustments are normally considered with Physical, Fictional and External or economic obsolescence. In further it has to consider physical life and economic life of assets.

UCEM (2017) defined cost base valuation as follows,

Value of Land and Building = Value of the site + Cost of erecting the building

Where Cost of erecting the building is usually that of constructing approximately the same accommodation without unnecessary features

The RICS Standards describe DRC as 'an estimate of the market value for the existing use of the land, plus the current gross replacement (reproduction) costs of the improvements, less allowances for physical deterioration and all relevant forms of obsolescence and optimization'.

Contractor's Basis

It has to make an allowance in the cost of the new building for the physical depreciation and/or functional obsolescence of the existing building. We can therefore allow for this in broad terms by applying the remainder of the life expectancy of the existing building to the construction costs of the replacement building.

Table 1: Comparison of Cost Basis and DRC

Contractor's basis	DRC
Building costs- Replacement cost of actual buildings, ignoring unnecessarily costly features or Cost of providing equivalent accommodation in a modern economic form (for those cases where the actual is out of date).	As in contractor's test, save that the assumed date of construction is at costs current at the date of valuation. Deduction usually based on the predicted life of the building, agreed with the owners: e.g. for a life of 25 years, 4% per annum taken on building costs only.

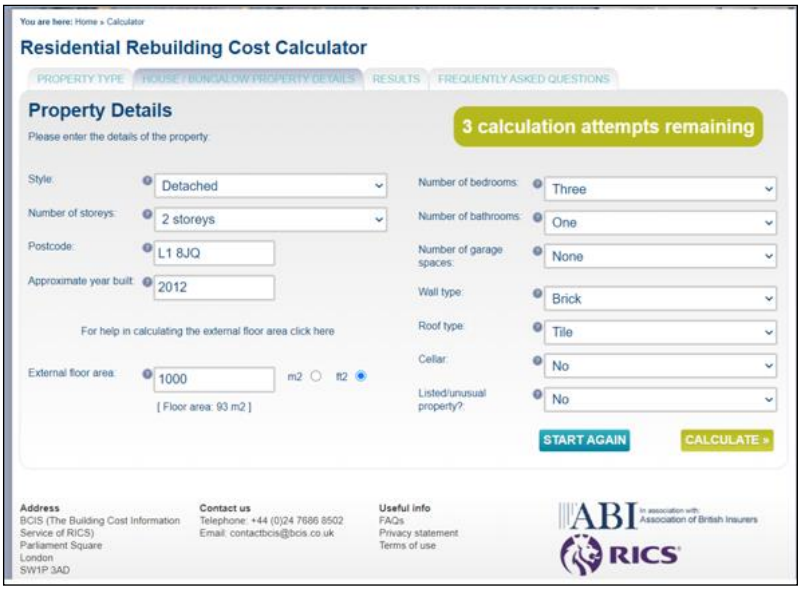
Source: UCEM, (2017).

The reinstatement cost of a property is the amount it would cost to totally rebuild the assets and further ROYAL INSTITUTE OF CHARTED SURVEYORS (2018) describe details in further, The net rebuilding cost is normally calculated by multiplying the **gross internal area** of the building by a **suitable rate for its reconstruction**. the cost of rebuilding the whole of the building in its present design and materials, to its existing shape and size, including basements, foundations and retaining walls. Evidence for current building costs can be obtained from various sources including **BCIS**, **price books** and in-house **costing** for similar projects.

RICS Building Cost Information Service

The Building Cost Information Service (BCIS) of the Royal Institution of Chartered Surveyors (RICS) produces a range of detailed guidance on the cost of rebuilding houses and flats. The Association of British Insurers (ABI) has commissioned BCIS to provide general guidance to help you check the adequacy of your sum insured. This site provides general guidance on the rebuilding cost of houses and some types of flats to the general public. If you require the rebuilding cost for commercial purposes, either as a surveyor, part of the insurance industry or to manage a group of properties then you should be using one of the BCIS subscription services. The following illustrate the interface of rebuilding cost calculator.

Figure 1: Residential Rebuilding Cost Calculator



Source: BCIS, (2020).

Classification of Buildings

A simple way to see and understand buildings is to classify them accordingto how they **1-look** and what they **2- do** such classification typically attempts to bring together a number of similar building types or uses for one or more reasons. At a general level, buildings may be seen in terms of their history and, as such, can be categorized according to their **3.age**, 4.**stylistic in fluences** and **5.Manner of construction.** This categorization forms the basis for the system of listing. David (2007)
Department order **No 306 (2017)** was defined building for the purpose of rating valuation as follow,

Obsalte – Line room type of building or building without proper internal arrangement.

General- Rectangular shape building with one or two bed rooms, dinning cum sitting area, verandah, kitchen and a detached toilet ect.

Semi-modern- House with open verandah/porch two to three bed room, sitting area, dinning area, pantry cum kitchen, attached bathroom, detached toilet ect.

Modern – residence with good architectural design tow to tree bed rooms master bed room attached bath room ,detach toilet, living area , dinning room pantry, kitchen, servant room, store room, indoor gardens, balcony ect

Ultra- modern – Residential with modern architectural design comprising two to five bed room, master bed room, attached bath room, detached toilet, TV lounge, study room, living area, dinning room ,pantry, Kitchen , Servant room, servant toilet, store room, indoor garden , swimming pool, and out door garden ect

Following table represent the building classification and building rate (Rs) adopted for the purpose of land acquisition

Table 2: Building Classification and Building Rates

Tile/RCC Roof two storied residential	-3,750 /=	to 4,500/= Per Sqft
Asbestos /RCC Roof two storied residential	-3,500 /=	to 4,000/= Per Sqft
Calicut tiles roofed single storied residential	3,250/=	to 4,000/= Per Sqf
Country tiles roofed single storied residential	2,750/=	to 3,500/= Per Sqft
Asbestos roofed single storied residential	2,250/=	to 3,000/= Per Sqft
Corrugated iron sheets roofed residential	2,250/=	to 3,000/= Per Sqft

Modern Type & Ultra – Modern type house	3,500/=	to 4,500/= Per Sqft
Semi Modern Type house	2,500/=	to 3,500/= Per Sqft
Tenement type house & cottage	2,000/=	to 2500/= Per Sqft
Open Veranda	1,500/=	to 1,750/= Per Sqft

Residential Obsolete	4,000/=
Residential Semi modern	4,250/=
Residential Modern	4,500/=
CFR Commercial Building	3,500 to 4,250/=

Residential Building RCC/ASB/Tilled & CI Roofed - Obsolete	
Residential Building RCC/ASB/Tilled & CI Roofed -Semi modern	
Residential Building RCC/ASB/Tilled & CI Roofed - Modern	
Residential Building RCC/ASB/Tilled & CI Roofed Detached - Fire	750/= to 1750/=
Temporary structure & shade CI thatched	

Source: Valuation Department, (2019).

Nishantha (2018) classified building and proposed building rates (Rs) as follows

Table 3: Building Classification and Building Rates

Obsolete/Ordinary I	2,000.00^{+-}
Obsolete/Ordinary II	2,500.00
Obsolete/Ordinary III	3,000.00
Semi-modern/S-Luxury	3,000- 3,600.00
modern/ Luxury	3,500- 5,500.00
Ultra-modern/Super-Luxury	4,500- Above

Source: Nishantha, (2018).

The classifications were not unique and it was hard to identify buildings to apply respective rate. The existing classification will direct to wrong valuation as an example Obsolete building can identify in deferent way like functional, physical or an economical obsolete where the classification was not clearly defined the type of the obsolescence hence it may lead for the wrong application of the rate by the valuers. It can be observed that roof is the base to classify the building for the purpose of capital valuation but roof itself not direct the cost of construction of the building.

International Property Measurements Standards (IPMS)

IPMS mainly classified buildings as industrial, office, residential and retail to introduce building measuring standards. ROYAL INSTITUTE OF CHARTED SURVEYORS members are expected to advise their client or employer on the benefits of using IPMS. However, it is understood that IPMS is not suitable in all circumstances and in these circumstances ROYAL INSTITUTE OF CHARTED SURVEYORS members **must** document the reason for departure this professional statement (PS) takes effect from 1 May 2018.

IPMS 2 – Office
(Formerly GIA) Costing – a method of measurement for a basis of calculating building costs and reinstatement costs.

IPMS 2 – Residential
(Formerly GIA) Costing – a method of measurement for a basis of calculating Building costs and reinstatement costs.

Methods

Theoretical Framework

Value of Land and Building = Value of the site + Cost of erecting the building

Where **Cost of erecting the building** is usually that of constructing approximately the same accommodation without unnecessary features/ Cost of similar assets offering equivalent utility

Conceptual Framework

Building classified based on **cost of construction** as shown in following Building classified table

Table 4: Proposed Building Classification and Building Rates

Building Class		Cost of construction Rs.
Class	**A1**	**> 6500**
Class	**A**	**6500-5500**
Class	**B**	**5500-4500**
Class	**C**	**4500-3500**
Class	**D**	**3500-2500**
Class	**E**	**2500-1500**
Class	**E1**	**< 1500**

Source: Author, (2020).

The following Building cost calculator introduced to find rebuilding cost of the similar building for the purpose of capital valuation

Table 5: Building Cost calculator –(BCC Tool)

	Residential	FL	1540	3,167,522.05	2,056.83	Class E	
1	Roof					1,509,200.00	
	Roofing Materials		Roof frame		Roof Finishers	Ceiling	
	Reinforced Cement Concrete ***	1.0		0	Downpipes-Aluminum		0
							0
2	Structure					1,245,167.00	
	Foundation		Wall		Floor		
	Random rubble with Rcc Column an	1	Cement block 4 1/2"	1	Concrete	1	
3	Fixture and fittings					-	
	Doors		Window		Window protection	Bathroom & Toilets-fittings	
	Glazed with timber frame		Timber panel with timber frame		Iron rode		
	Fixture and fittings					-	
	stair case		Pantry		Other fixtures		
			Wooden pantry cupboard class 2-3 unit		Light fittings- standard		
			Pantry Top -Tile				
4	Finishers / Facilities					-	
	Wall Finishers		Floor finishers		Bathroom & Toilets	Facilities	
	Color wash		Ceramic tile grade A		Tile Class 2- Floor+Wall	Telephone line	
						Electricity	
						Well Water	
						Pipe water	
5	Design						
	Design -professional involments		Facilities-Premium Price		Condition-maintenance	Age-expected life-Obsalasance	
	Semi Modern		Average		Good	More 50	

Building				Land			
Floor area		Building Details		Access		Land details	
Lover Ground		Bed Room	3	Local roads		Land extend- Total	13.1
Ground	1540	Living	1			Land extent -a pertinent	10
1st Floor		Kitchen	1			Land extent- Excess	
2nd floor						Frontage	60
3rd floor						Level with access	Same level
4th floor						Shape	Rectangulor
5th floor						Lie	Uneven
6th floor						Landscape	
7th floor						Proposed land value pp	95000

Source: Author, (2020)

The Building cost calculator tested with 21 numbers of sample which are located in the limit of Western province. The sample consists with completed building, incomplete building and building under construction.

Results and Discussion

Objective 1. To identify the area that has to improve the consistency of valuation

Literature review that deferent types of building classifications were used for the capital valuation where unique classification were not practiced among the profession and this became a barrier for the consistency of the valuations. A similar building classified in deferent way and then adopted deferent cost rate to derive cost of construction, in addition the building classification was not clearly defined, where thesis factors were raised consistency issues. As in the fact, **Table 04: proposed Building classification and Building rates** are introduced for the practice of the profession base on **cost of construction** of the buildings.

The each building classes can be descriptively defined as per the construction of the building where Class A defined as bellow and refer annexure 01. For the further detail of other building classes.

Table 6: Building classification for class A

Class A			
Roof	Roofing Materials	Color -con tile,calicat tile,reainforce cement,Fiber/Galss sheet	Class A
	Roof frame	Sawn timber Class 1, Detail timber frame	
	Roof Finishers	Valance Bord-Wooden class 1, Down pipe,Gutters	
	Ceiling	Timber class1 Ceiling	
Structure	Foundation	Rcc,Pile,Minipile,Randoum rubble with Rcc column	
	Wall	9" Brick, RCC Beams	
	Floor	RCC,Concrete	
Fixture and Fittings	Doors	Timber Class 1 panel with timber, Iron Roller shutter	
	Window	Timber Class 1 panel with timber	
	Window protection	Stainless Steel	
	Bathroom & Toilets-fitting	A gade Tile	
	stair case	Wooden class 1	
	Pantry	Wooden class1	
	Other fixtures	AC,CCTV, Sola pannel,Hot water	
Finishers	Wall Finishers	Tile, wall papers,modling	5500-6500
	Floor finishers	Grade A tile	
	Bathroom & Toilets	Grade A tile	
Facilities		Electricity, Pipe water, Telephone line	
Desing	Modern, semi luxury, good condition, Expected life more than 40 yers		

Source: Analysis Data, (2020).

Objective 2. To improve the consistency of capital valuation when using the cost based method of valuation

Building Cost Calculator (BCC) can be used as guide line to identify building class and rebuilding cost of similar building where the BCC can apply even for finished building, incomplete building and even building under construction. The BCC will help to improve the consistency of cost base valuation. Standard deviation of BCC is 2.7% of the cost of construction as per the tested samples. The following table compares the actual cost with cost derived though the Building calculator. Three samples of building classifications were not matched with the actual and the cost deference of this were felled between 6% to 13% of the construction cost where all the others were similar in building class and cost of construction were almost similar of the actual cost of the construction.

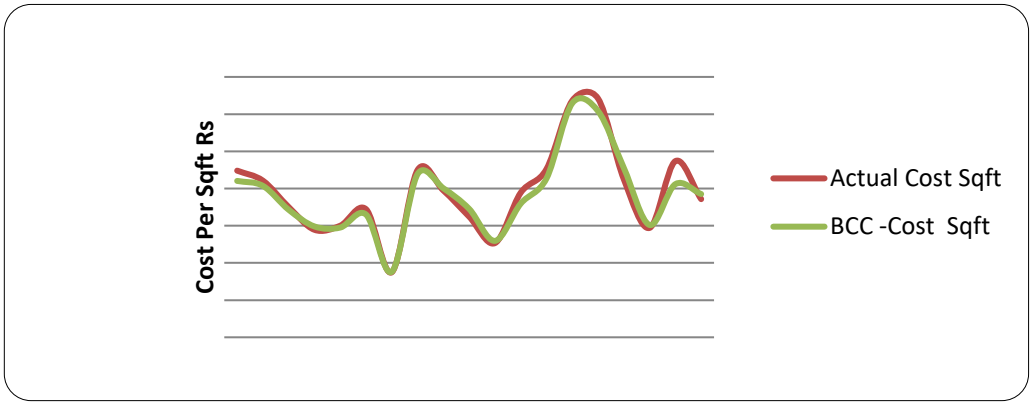
Table 07: Sample Data Analysis

Sample ID		Actual Data				Building cost calculator			Actual vs BCC	
		Floor area	Construction cost	Actual Cost Sqft	Building Class	Cost Derived from BCC	BCC -Cost Sqft	Building class	Cost Deference	Deference %
ADV	1	2500	11,200,000	4,480	Class C	10,509,813	4,204	Class C	690,187	0.06
Other	2	3800	16,000,000	4,211	Class C	15,467,567	4,070	Class C	532,433	0.03
report	3	678	2,373,000	3,500	Class D	2,324,381	3,428	Class D	48,619	0.02
Other	4	2526	7,300,000	2,890	Class D	7,526,120	2,979	Class D	(226,120)	(0.03)
DCV	5	3000	9,000,000	3,000	Class D	8,854,241	2,951	Class D	145,759	0.02
ADV	6	2817	9,700,000	3,443	Class D	9,295,992	3,300	Class D	404,008	0.04
report	7	205	358,750	1,750	Class E	361,160	1,762	Class E	(2,410)	(0.01)
DV	8	3500	15,750,000	4,500	Class C	15,362,246	4,389	Class C	387,754	0.02
ADV	9	3040	12,000,000	3,947	Class C	12,178,962	4,006	Class C	(178,962)	(0.01)
RV	10	1850	6,000,000	3,243	Class D	6,386,206	3,452	Class D	(386,206)	(0.06)
ADV	11	3158	8,000,000	2,533	Class D	8,187,874	2,593	Class D	(187,874)	(0.02)
ADV	12	2315	9,000,000	3,888	Class C	8,320,048	3,594	Class C	679,952	0.08
ADV	13	2100	9,500,000	4,524	Class B	8,968,428	4,271	Class C	531,572	0.06
ADV	14	2200	14,000,000	6,364	Class A	13,848,442	6,295	Class A	151,558	0.01
ADV	15	2150	13,800,000	6,419	Class A	13,074,533	6,081	Class A	725,467	0.05
ADV	16	1295	5,500,000	4,247	Class C	5,895,631	4,553	Class B	(395,631)	(0.07)
ADV	17	1700	5,000,000	2,941	Class D	5,132,568	3,019	Class D	(132,568)	(0.03)
DCV	18	1900	9,000,000	4,737	Class B	7,822,833	4,117	Class C	1,177,167	0.13
ADV	19	1400	5,200,000	3,714	Class C	5,391,561	3,851	Class C	(191,561)	(0.04)
ADV	20	1918	6,500,000	3,389	Class D	6,553,658	3,417	Class D	(53,658)	(0.01)

Source: Analysis Data, (2020).

The following chart represents the relationship of actual cost and cost derived from building cost calculator (proposed tool)

Figure 02: Actual Building Rates Vs BCC Calculated Building Rates



Source: Author, (2020).

Conclusion

Building classification table can be used for the classification of buildings in capital valuation. The table will maintain the unique classification of the building among the profession and its will lead the consistency of valuation. Building rate can be adjusted in terms of time and location if necessary.

The **Building Cost Calculator** can be used as a guide line to derived reinstatement/rebuilding cost of similar building where it can be used in capital valuation in cost approached methods.
Limitation

01. The BCC tested in only Western province
02. Tested building cost range was Rs. 0 to 6,500
03. Standard deviation of the BCC tool is 2.7% as per the sample
04. The Building cost calculator can be applied building that have less than five story

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