Real Property Valuation Approaches and its Accuracy in Hawassa City

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ABSTRACT

The value of real property value valuated by banks is debatable due to variation between their approach and current market value in detail cost to construct a property. In most cases, different stakeholders complain about the value of the properties that are valued by banks in Hawassa city. Thus, the main objective and purpose of this research are to assess real property valuation methodologies and their accuracy used in banks in Hawassa City. Purposive random sampling was used to select respondents for structured questionnaires, interviews, and case studies. A total of thirty-nine bank valuators and six evaluated properties were used for the survey and case study, respectively. The survey results and case study show that within the cost approach some results are lower from market value and others are higher than property value by the mean value of +/- 17%, which ranges from +/- 15% to +/- 20%. From the problems deemed as a reason for valuation inaccuracy, political instability and the problem of peace are ranked first among others.

Keywords: *Banks, Hawassa City, Market Value, Property Valuation, Valuation Accuracy.*

1. INTRODUCTION

1.1 Background

Valuation can be defined as the process of estimating value. Valuation is an art requiring judgment and forecast. For this purpose, conclusions about value are arrived at by a scientific analysis of the available data (Abhishek Golchhal, 2016). The estimated selling price of building is referred to as the open market value of that building (Boshoff, 2011) Market value of building is the most likely price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress (USAID, 2005).

Real property valuation, also referred to as appraisal, is carried out for many different purposes, such as selling or purchasing, renting, mortgage security or collateral, compensation, and taxation. Their relative importance varying from one country to another. In carrying out any valuation assignment for collateral purposes or mortgage security, the valuer is faced with the task of selecting the appropriate method to adopt. The value of a property that is calculated by the bank for the purpose of collateral is debatable. The borrowers have different outlooks regarding the value of their property appraised by the bank. They do believe the appraisal made by the bank is much less than the market value of their property. The major causes for undervaluation and overvaluation are the method of valuation that the banks are following (Wyatt, 2013).

Achieving economic sustainability in property transactions requires proper assessment of the value through accurate valuation. The principal issue in valuation accuracy is standardizing the information set to ensure that all Valuers are equally informed. Valuations are a function of information. The better the information set is, the better the valuation. If a group of Valuers each have a different view of the market, then the distribution of valuations would have a wider variance than those that are based on similar information. The spread of valuations will depend upon the completeness of the information set. In fact, it is the difference in interpretation of the information that leads to possible transactions (AJIBOLA, 2010).

Currently, Ethiopia is facing rapid growing urbanization and modernization of infrastructure. Most towns and cities in regions have been expending twice their size within the past ten years. It has been some time since property valuation is practiced in Ethiopia. Properties are valued mainly for compensation during public infrastructure development, forced sell by court order and for collateral purposes. Moreover, recently, the government has developed new master plans for existing and newly established urban settlements. As a result, private investors work with banks for infrastructure development, such as commercial/business center development, residential buildings, and institutions. For those developments, private sectors obtain financial assistance from banks through loans, and for the security of loans as advance, the properties are valuated and appraised collateral (USAID, 2005).

As the Hawassa City profile report by Hawassa city finance and economic development in 2016, there are factors that make investors open their capital cost to Hawassa City. These are suitable weather conditions, natural attractions, friendly communities and heterogeneity in residents,

resulting in a high rate of urbanization and housing shortages so that investors build, buy and sell real properties for residences, commercial purposes, storage and related services as per the function of constructed buildings. For listed purposes, banks play a great role by giving loans for private residences as well as large commercial developments such as Hotels and Resorts in Hawassa City. However, to approve loans, banks hold property as collateral to secure loans, and collateral determination of buildings/real property market values still uses unscientific practices. The value of real property value valuated by banks is debatable due to variation between their approach and costs outlaid by clients to construct property. In most cases, different stakeholders complain on the value of the properties that are valued by banks in cities.

1.2 Statement of the problem

The real property value determined by banks for loan security in Hawassa is an approximate depreciated cost method. Borrowers have different outlooks regarding the value assessed by banks, and they believe that the amount appraised by banks is much less than the value of their property. This is due to banks' approximate cost assessment and its high variation with the detailed cost of construction. Therefore, clients still suffer from inconsistencies in banks' valuation of the money they invest and think that their properties are disposed of at values in excess of appraisal.

Additionally, lands with buildings have value in market weather from lease agreement or from acquisition by hereditary. Hence, proper valuation of, for instance, a given real property value could be quite perplexing. Since there is no developed market for the land by banks on which such buildings are established or developed, there are problems of valuating buildings by banks for bank finance purposes. At least the valuation calculation must be close to the new construction cost of similar buildings.

1.3 Objectives

1.3.1 *Main Objective*

The main objective of this study is to assess real property valuation methodologies and their accuracy in banks in Hawassa City.

1.3.2 Specific objectives

The specific objectives of the study are:

- ✓ To assess existing real property valuation methodologies of banks in Hawassa city.
- ✓ To compare valuation methods used by banks with detail costing.
- ✓ To identify key problems deemed to be a cause of variation that arises in building valuation undertaken by banks in Hawassa city.

2.0 Materials and Methods

2.1 The study area

The study was conducted in Hawassa City, Ethiopia, which covers an area of approximately 50 km2 and is located approximately 275 km from Addis Ababa along the road connecting Ethiopia and Kenya. It is an administrative center and/or regional capital of the Southern Nations, Nationalities and Peoples Regional (SNNPR) state. It is found in the Sidama Zone on the eastern shore of Lake Hawassa, which is one of the Great Rift Valley Lakes. It is located approximately between 7°00'36" N latitude and 38°29'54" E longitude and at an average elevation of 1705 m above mean sea level (a.m.s.l).

2.2 The Study Design

In this study, a case study method was used to collect and analyze the data, and it was supported by questionnaires and interviews. A case study approach was considered appropriate in the assessment of real property valuation and its accuracy in Hawassa City. It allowed direct observation of the real properties being studied and interviews of the persons involved in the property valuation process. Through direct observation of properties valuated, as well as through interviewing and questionnaires with property owners and valuers, it was possible to evaluate the actual practice real property valuation approaches and its accuracy in Hawassa City.

2.3 Study Population and Sampling

By using purposive random sampling commonly called person-to-person sampling, case study data, such as land lease agreements, built bills of quantity (BoQs), built drawings, recently

prepared property valuation data, payments made for consultants, payments made for contractors, costs outlaid for lease, etc., are collected. A total of six valuated buildings are selected as a case study, i.e., four of them are commercial buildings, and two are residential buildings. These six buildings are valuated and appraised in the fourth quarter of the 2011 Ethiopian calendar so that it is possible to assess their valuation approach by using relevant data from the bank valuation system and compare it with current market value., i.e., their valuation dates are not far from the current market, so the difference between the current market assessment and bank valuation is identified as valuation variation and inaccuracy. Additionally, questionnaires, questionnaire interviews and normal scheduled interviews were used to conclude the case study and assessment of the whole Hawassa City valuation practice.

The questionnaire was distributed to 39 property valuators that are currently working in banks as real property valuators. From 39 valuators, 10 valuators are currently working in Hawassa district bank property valuation departments, and the remaining 29 valuators are at the Addis Ababa head office level and perform the property valuation process of the Hawassa city branch when requested from branch offices.

2.4 Data Analysis

In this study, both quantitative and qualitative data were used. The data from questionnaires, questionnaire interviews and normal scheduled interviews were used to assess the real property valuator perception in valuation practice, variation and inaccuracy existence and problems or causes of variation and real property owners' satisfaction on the result of their property assessment and appraisal by bank. The collected data from valuators and property owners are quantitatively analyzed by statistical methods. Data analysis output is in the form of simple descriptive statistical methods, such as averages, ratios, percentages, standard deviations and standard errors, which were interpreted to establish the context of the meanings of the responses and their implications for the study objectives and questions. The standard deviation (SD) measures the amount of variability, or dispersion, for a subject set of data from the mean; in other words, SD indicates how accurately the mean represents sample data, while the standard error of the mean (SEM) measures how far the sample mean of the data is likely to be far from the true population mean. The SEM is always smaller than the SD. The standard error of the

mean was checked with the data standard deviation to check whether it holds the data reality of SEM<SD. Mean square($\bar{x}$) can be calculated by: $\frac{\sum x_i f_i}{f}$

Where f: Sum of frequencies

xi: is Measurement scales

 fi : is its frequencies

Standard deviation is calculated as SD= $\sqrt{\frac{n(\sum xi^2 fi)-(xifi)^2}{n(n-1)}}$

where n=number of samples, xi=measurement scale and fi= frequency.

The standard error is measured as (SE) $=\frac{SD}{\sqrt{n}}$, where SD is the standard deviation and n is the sample size. Finally, the problems that cause valuation variation or debate from current market value are ranked based on their mean score value. Additionally, after having case study documents stated above as per requirements of techniques developed from the literature review and banks practices the selected property valuation is assessed, the same property is evaluated by other banks in Hawassa City and the best possible value that property in current market is calculated based on detail replacement cost. Then, the difference in the real property value of banks in Hawassa City and the current market value of property is compared to check the percentage deviation of the bank assessment scale with the current market value of property.

Finally, the respondents result from questionnaires and interviews with a detailed case study on six real properties. The findings are summarized, the mean value of variation is developed, problems are identified and ranked because variation is identified and ranked, and an overall conclusion is drawn with recommending possible directions that can cause improvement in real property valuation and accuracy.

3.0 RESULTS AND DISCUSSION

3.1 Purpose of valuation

According to respondents, real property in Hawassa is valuated mainly for two purposes., i.e., for Mortgage security and for forced selling purposes. Among the purposes of property valuation, mortgage security and forced selling are identified with a response rate of 100%. Additionally, interviews from valuator team leaders in four main district banks confirmed that if the customer was not able to pay his loan per loan and collateral agreement entered the bank, the bank would

sell that property to recover the amount of money lent to the customer by taking new valuation at a time to take forced sell action.

3.2 Real property valuation approach and its accuracy

The respondents asked to select property valuation approaches, and 31 respondents or 100% rate selected the cost approach of property valuation. All banks engaged in real property valuation use the replacement cost method. According to interviews with four real property valuation coordinators in banks of Hawassa city, they use the cost method of valuation as their response to cost. Approaches are used as depreciated and undepreciated replacement costs for property under operation and under construction, respectively. The response rate of questionnaires also assures this reality. Additionally, interviewees from bank valuation team coordinators assured that they use the previously developed rate per sq. m floor and they have no trend of checking the result with detail costs outlaid to construct that property even detail costing is final detail indicator to replace real property

Respondents are asked to indicate their professional opinion on whether the valuated result represents the current market value of that property by giving measurement scales. The detailed results of the valuation accuracy variance are presented below in Table 1.

Table 1 Respondents Result on Existence of Valuation Variance and Inaccuracy in Practice in Banks of Hawassa City.

5=Strongly Agree, 4=Agree, 3=Undecided, 2= Disagree and 1= Strongly Disagree								
Measurement Scale	5	4	3	2	1	Mean score	St. error	St. Deviation
Existence of variation	16	9	6	0	0	4.32	0.1399772	0.78

From Table 1, the results show that valuation variance and inaccuracy exist within the Hawassa city banks valuation practice, as shown by the respondents. A total of 51.6% strongly agreed, and 29% agreed with this, representing 80.6% acceptance with a mean score of 4.3225806 and a standard deviation of 0.7782154. The sample mean of the data is 0.0139772, far from the population mean, and the standard deviation is greater than the standard error., i.e., 0.7782154>0.139772

To determine the acceptance margin of inaccuracy, respondents were asked to give their opinion on the acceptance margin of variation of valuation from the bank estimate and market value of the properties. The analysis of respondents' opinions is presented in Table 2 below.

Table 2 Valuer's opinion on variance of valuation acceptance margin.

Variable of accuracy acceptable margins	+/- 5%	+/- 10%	+/- 15%	+/- 20%	Above 20%
Frequency of accuracy acceptance level	18	10	3	0	0
Percentage of frequency	58.06	32.5	9.67	0	0

Sampled opinion from engineers working in banks of Hawassa city as real property valuators shows that for valuation to be accepted as accurate, the error margin between the valuation result and current market value should be between ±5% and ±10%, as indicated above by 58% and 32% of the respondents supporting this margin. Any valuation falling beyond this range will not be reliable.

3.3 Satisfaction of Costumer on Banks Valuation

Of them, 16 real property owners obtain loans from banks in Hawassa city in the fourth quarter of 2011 E. C are interviewed to express their level of satisfaction with the value of their property estimated by banks. From interviewed bank customers regarding property valuation, 81% are highly dissatisfied, and 13% are dissatisfied. This shows that the majority (94 percent) of the customers were not satisfied with the valuation result offered by banks. Although there is still debate regarding the results regarding current market value, this should remain the main issue that needs to be addressed by participating banks and other concerned parties.

3.4 Causes of valuation variance and inaccuracy of banks in Hawassa City

To identify valuators perception on possible cause of valuation variance and inaccuracy for all banks in Hawassa city that engaged in real property valuation services, structured questionnaires of 5-points scale (where 5=strongly agree,4=agree, 3=undecided, 2=disagree, and 1=strongly disagree) is used to rank the response from respondents. Fourteen factors that cause valuation variance were identified from the literature review and bank document analysis to be included in question. According to respondents' possible causes of valuation variation and accuracy, they are identified and ranked in Figure 1.
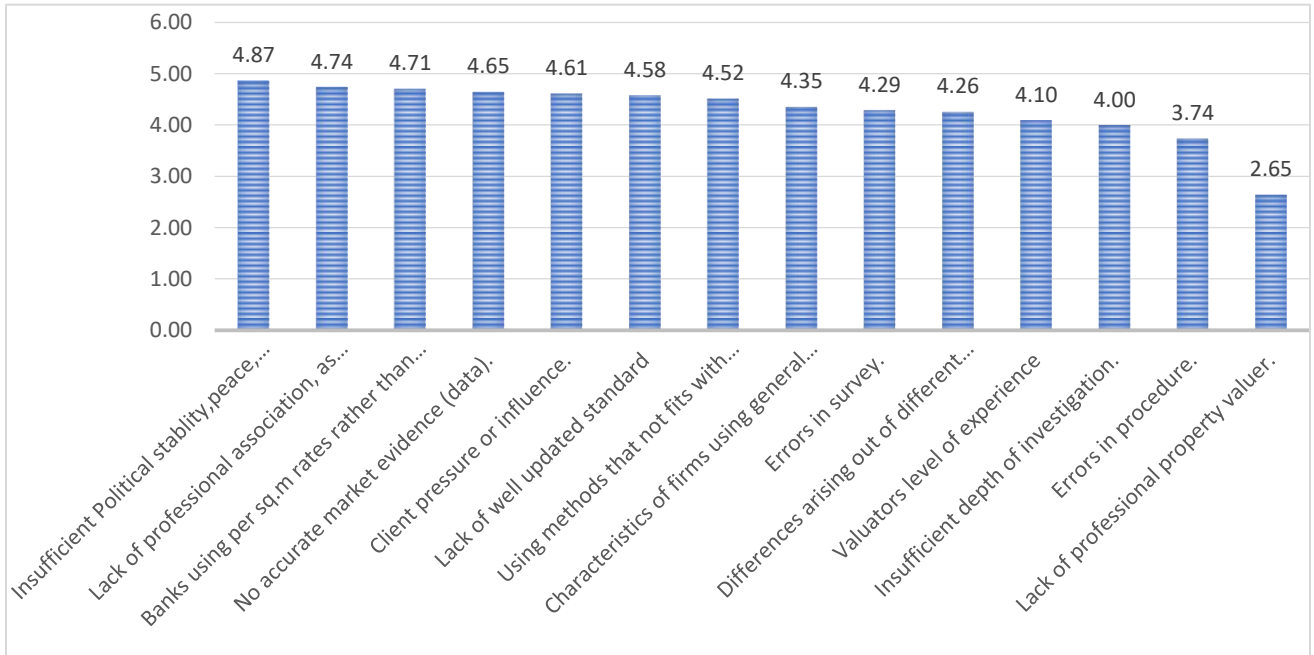
Figure 1 Valuation variance variables with their mean score

In this finding, regarding the valuer's opinion, the sample size and study population were equal, so validity regarding the representation of the sample size to the study population was not important. A small value of standard error in the findings of the variable indicates that the sample mean is close to the population mean. Additionally, the findings regarding variables of possible causes of valuation variance and inaccuracy in the above figure fulfill the statistical rule, as the standard deviation must be greater than the standard error.

The findings from the study revealed that valuation variance and inaccuracy exist within the Hawassa city banks, as no two valuation methods give the same value opinion. It also shows that continuous variation in valuation will increase the rate of customer dissatisfaction. Among the causes of valuation variance and inaccuracy identified above, insufficient political stability, peace, and security were ranked first with the highest frequency and mean score.

3.5 Case study Result

A case study focuses on the assessment of real property valuation approaches of banks with their accuracy on selected properties in Hawassa city. To examine this, a selection was made of commercial properties and residential properties that were evaluated by the respective banks in Hawassa city. The value of selected property is determined by other banks in Hawassa city for comparative analysis.

The valuation calculations are done based on detailed provisions on banks valuation format with the respective market conditions. After the determination of the values, the outcomes are compared with each other with banks as well as detailed construction/improvement costs to replace similar properties. A total of four commercial properties and two residential properties were evaluated recently in 2019 G. C are selected based on nonprobabilistic sampling. The selected buildings are properties or buildings under construction.i.e., finishing stage, so depreciation is neglected in all banks' valuations. A detailed description of the properties selected for the case study is presented in Table 3 below.

Table 3 *Properties Selected for a Case Study in Hawassa*

Property	Category	Valuated by	Specific location	Plot Area (Sq. m)
Property A	Commercial	Dashen Bank	Old Bus station	1000
Property B	Commercial	Dashen Bank	Woldeamanuel Avenue	800
Property C	Residential	Awash Bank	Around View Hotel	250
Property D	Commercial	Dashen Bank	Old Bus station	1000
Property E	Commercial	Dashen Bank	Old Bus station	1500
Property F	Residential	COOP	Guwe (Atote)	375

The detailed valuation and analysis for each selected project are presented in the following paragraphs.

Property A

The subject property consists of an approximately 1000 square meter land parcel that is improved by commercial buildings. The land holding of the company is held under a leasehold interest. Notable landmarks in the vicinity of the subject property include a private mixed-use building, South Star International hotel and main asphalt way to old bus station. Table 4 summarizes the constructed floor and its grade or class of construction.

Table 4 Detail breakdown of property A

Floor Constructed	Constructed/Improvement area (m^2)	Grade/Class of Construction
Basement floor	481 m^2	Class -4
Ground Floor	499 m^2	Class- 2
Mezzanine floor	144 m^2	Class-2
First to Fifth floor	2223 m^2	Class-2
Total	**3347 m^2**	

(Source: Dashen Bank Hawassa District Property valuation and appraisal office)

Valuation approach employed is Replacement cost method. The approach equates the replacement cost of property with property market value. The replacement cost of the property can be calculated by:

Property value=[Location value]+ [(Floor slab area (m2)) X (Banks rate/m2 specified construction grade of property within each floor)]

The location value is the value of the plot of land in birr amount based on the bank land grade scale in birr. According to the Dashen Bank property valuation format, the bank has five land grades: 4849, 4058, 3247, 2471 and 1505 birr per sq. m for land grades 1,2,3,4 and 5, respectively. Based on that value, property A falls on grade one, which is 4849 birr per square meter. The total plot of land in lease agreement was 1000 square meters. Therefore, the value of land=1000*4849=4,849,000 birr.

The selected property is a built BOQ, and the property is B+G+M+5, a commercial property, which has eight different floors. The construction grade, slab area, bank rate per grade of construction in square meter slabs and property value per slab are summarized in Table 5 below.

Table 5 Dashen Bank valuation detail

Floors constructed	Class of Construction	Construction Area (A)	Rate (birr) (B)	New replacement cost (A*B) Birr
Basement floor	Class-4	481 m^2	8,271	3,971,351
Ground floor	Class-2	499 m^2	11,184	5,592,000
Mezzanine floor	Class-2	144 m^2	11,184	1,632,864
First to fifth floor	Class-2	2223 m^2	11,184	24,739,008
			Total new replacement cost in Birr	35,942,223

(Source: Dashen bank Hawassa district property valuation and appraisal office)

Therefore, value of property =value of land + replacement cost of improvements.

=4,849,000 birr + 35,942,223 Birr

=40,791,223 birr (Source: Dashen Bank Hawassa district)

Comparison of the replacement cost of banks with the detail costing (BOQ) of the Hawassa market

To calculate the detailed cost of property-built documents, such as drawings built from clients, updated rates from municipalities and detailed market investigations are performed to cross

check the built BoQ for property A. Thus, the detailed cost outlaid for property A is 47,968,634 Birr.

The property value by replacement costing (BOQ) method is the summation of lease interest paid for land, detailed building/improvement costs and consultancy fees.

Property value=Lease paid + detail building cost + Consultancy fee,

The location value of property A is calculated as follows.

The total lease period is 58 years; the remaining lease period is 46 years.

The total lease paid, up to now is,

- Advance payment-**525,000 birr**,
- Yearly lease payment-**31,410.26 birr** paid for 12 consecutive years, including a yearly bank interest of **7% (33608.97 birr).** (source: Misrak sub city municipality)
- Value of land=525,000 birr + 12*33,608.97 birr=**928,307.64 birr** (source: Misrak Sub-city municipality)
- Consultancy fee=**750,000 birr**(source: Client)
- Detail cost of building=**47,968,634 birr**

Therefore, Total value of property A is=928,307.64 Birr +750,000 Birr+47,968,634 Birr = 49, 646,941.64 birr

Property market value =49,646,941.64 Birr, but the property value estimated by Dashen Bank=40,791,223 Birr. Variance=40,791,223 birr - 49,649,941.64 birr= (8,855,718.64 birr), Variance in %=17.84. Based on the above calculation, Dashen Bank underestimated property by 8,855,718.64 birr or 17.84% when it is compared with detail cost required to obtain land, cost for consultancy and construction/improvement. This in turn increases customer dissatisfaction because their assets are held in excess by 17.84%.

Comparison if the property is valued by other banks in Hawassa city.

The construction grade identification of all private banks of Hawassa city engaged in real property valuation service is identical, and the difference is land value and rate per Sq. m with in specific grade of construction.

Valuation of property-A, by Awash International Bank

A summary of the construction grade, slab area, bank rate per grade of construction in square meter slabs and property value per slab is presented in Table 6 below.

Table 6 Awash International Bank valuation detail

Floors constructed	Class of Construction	Construction Area (A)	Rate (birr) (B)	New replacement cost (A*B) Birr
Basement floor	Class-4	481 m^2	10,000	4,810,000
Ground floor	Class-2	499 m^2	15,000	7,485,000
Mezzanine floor	Class-2	144 m^2	15,000	2,160,000
First to fifth floor	Class-2	2223 m^2	15,000	33,345,000
			Total new replacement cost in Birr	47,800,000

(Source: Awash International Bank Hawassa District Property valuation and appraisal office)

Land value is not considered in Awash bank valuation assessment for regional cities (Source: Ato Abera-Awash Bank property valuator engineer and valuated samples by bank), There for the value of property A, if its valuated by Awash bank=47,800,000 birr but Property value in detail replacement cost in current market=49,646,941.64 birr

The difference is **(1,846,941.64)** if property is valued by Awash Bank; its value will be under valuated by amount, **1,846,941.64 birr**, which is **3.86%** lower than detail costing in current market.

Valuation of property A, by Cooperative Bank of Oromia

Details of the construction/improvement cost of property A by COOP Bank are summarized below in Table 7.

Table 7 COOP Bank valuation detail

Floors constructed	Class of Construction	Construction Area (A)	Rate (birr) (B)	New replacement cost (A*B) Birr
Basement floor	Class-4	481 m^2	12,363	5,946,603
Ground floor	Class-2	499 m^2	17,316	8,640,684
Mezzanine floor	Class-2	144 m^2	17,316	2,493,504
First to fifth floor	Class-2	2223 m^2	17,316	38,493,468
			Total new replacement cost in Birr	55,574,259

(Source: COOP Bank Hawassa District Property valuation and appraisal office)

The location value is considered by COOP. Based on the site visit and assessment manual of COOP, the location of property A falls on grade 1, and the plot is 801 sqm to 1000 Sq. m, which is 2460birr per Sq. m. The value of land=1000sq.m *2460 birr/Sq. m=2,460,000 birr

The consultancy fee for the project will be equal to 1.5% of the building construction cost. (COOP manual, 2019)

Consultancy fee=0.015*55,574,259birr= 833,613.885Birr

Therefore, the value of Property A, if it is valued by COOP, will be=location value + consultancy fee + replacement cost of building, which is =2,460,000 birr+833,613.88+55,574,259 birr=58,867,872.88 birr, but the property value in detail

replacement cost in the current market=49,646,941.64 birr. The difference is 9,220,931.24 if property is valued by the Cooperative Bank of Oromia. Its value will be overvalued by the amount, 9,220,931.24 birr, which is 15.66% higher than the detail costing in the current market.

Valuation of Property A, by Commercial Bank of Ethiopia

According to the commercial bank of Ethiopia real property valuation manual, the value of property=location value + cost of improvement cost depreciation. Property A is a new building on the finishing stage, so depreciation is not deducted.

Location value is considered by CBE, based on site visit and assessing manual of CBE, the location of property A falls on grade 1, and plot of 801 sqm to1000 Sq. m, which is 2460birr per Sq. m, Similar with COOP. For details of Commercial bank of Ethiopia location value or land grading for properties located in Hawassa city. Location value=1000*2460=2,460,000 birr

The current replacement cost of the improvement is assessed based on current building/construction cost indices of the bank. From this, the unit construction cost is derived and further refined to reflect material differences in quality and materials of construction and finishes as well as details of accommodation. The derived and adjusted unit cost is applied to the gross floor area of the building.

According to CBE Building replacement cost=Total floor area *rate. To calculate the value of property A, we have to add the total area of each item. Table 8 summarizes all floor areas with rate per overall weight for floor area in birr.

Table 8 CBE valuation Detail

Floors constructed	Construction Area (A)	Rate (birr) (B)	New replacement cost (A*B) Birr
Basement floor	481 m^2		6,349,200
Ground floor	499 m^2	13,200	6,586,800
Mezzanine floor	144 m^2		1,900,800
First to fifth floor	2223 m^2		29,343,600
	Total new replacement cost in Birr		44,180,400

(Source: CBE Hawassa district property valuation and appraisal office)

The property value per CBE is the summation of the construction cost and location value.

=44,180,400 birr+2,460,000 birr

=46,640,400 birr

Current market value as per detail replacement costing, cost paid for lease and consultancy fee=49,646,941.64 birr, the difference is (3,006,541.64), which is under valuated by amount 3,006,541.64 birr or by 6.5%.

Property B

Following the same procedure as the above analysis, the result of property B valuation is summarized in Table 9 below.

Table 9 Valuation detail of Property B

Construction area (m$^{2)}$	Market Value	Property valuated			
		By Dashen	By Awash	By COOP	By CBE
3347 m^2	39,727,907.11 Birr	37,801,799 Birr	45, 015,000 Birr	55, 734,592 Birr	33, 473, 600 Birr
	The difference	-1,926, 108.11 Birr	5,287,092.89 Birr	16,006,684.89 Birr	-6,254,307.11 Birr
	% variance	5.09% below	11.74% above	28.71% above	18.68% below

Property C

In Table 10, the summary of the valuation analysis of property C is presented.

Table 10 Valuation detail of Property C

Construction area (m$^{2)}$	Market Value	Property valuated			
		By Dashen	By Awash	By COOP	By CBE
960 m^2	10,485,741.34 Birr	11,313,370 Birr	9, 600,000 Birr	9, 862,722 Birr	8, 383, 500 Birr
	The difference	827, 628.66 Birr	-885,741.34 Birr	- 623,019.34 Birr	-2,102,241.34 Birr
	% variance	7.31% above	9.23% below	6.31% below	25.08% below

Property D

Property D is valued by Dashen Bank for loan purposes, and its detailed analysis is presented in Table 11 below.

Table 11 Valuation detail of Property D

Construction area (m$^{2)}$	Market Value	Property valuated			
		By Dashen	By Awash	By COOP	By CBE
3649 m^2	75,718,727.98 Birr	67,732,088 Birr	70, 570,000 Birr	73,438,487 Birr	68,506, 900 Birr
	The difference	-5,692, 863.08 Birr	-5,148,727.98 Birr	- 2,280,240.8 Birr	-7,211,827.98 Birr
	% variance	11.8% below	7.3% below	3.1% below	10.05% below

Property E

Subject property E is located in Misrak sub city - right from Bera Beer Hotel, in front of an old bus station. In Table 12, the summary of the valuation analysis of property E is presented.

Table 12 Valuation detail of Property E

Construction area (m²)	Market Value	Property valuated			
		By Dashen	By Awash	By COOP	By CBE
12,524 m²	230,284,927.18 Birr	224,537,756 Birr	245, 180,000 Birr	244,648,074 Birr	218,352, 300 Birr
	The difference	-5,747, 171.8 Birr	14,895,072.82 Birr	14,363,146.56 Birr	-11,932,627.20 Birr
	% variance	2.56% below	6.07% above	5.87% above	5.46% below

Property F

The last property considered in this case study is residential building, which consists of an approximately 375 m² land of parcel, and it is an operational stage valuated by the Cooperative Bank of Oromia for loan financing purposes. The summary of the analysis presented below in Table 13.

Table 13 Valuation detail of Property F

Construction area (m²)	Market Value	Property valuated			
		By Dashen	By Awash	By COOP	By CBE
206.89 m²	1,683,869 Birr	2,339,225 Birr	1,474,990 Birr	1,915,088 Birr	1,331, 615 Birr
	The difference	655,356 Birr	-208,879 Birr	231,219 Birr	-352,254 Birr
	% variance	28.02% above	14.16% below	12.07% above	26.5% below

To summarize the valuation variation ranges of Dashen Bank, Awash International Bank, Cooperative Bank of Oromia and Commercial Bank of Ethiopia are (-21% to 28%), (-14% to 12%), (-6 to 28%), and (-26 to 0%), respectively.

The mean of the lower range=-21-14-6-26=-67/4=-16.75%, approximately -17%.

Mean of high range=28+12+28+0=68/4=17%

Therefore, based on an assessment performed on four banks in Hawassa city taking 6 properties as a case study, the valuation variation and accuracy are +/- 17%.

4. CONCLUSIONS

Based on the findings of this study, the following conclusions are given:

- All banks use replacement cost method. By the replacement cost method, the market value of real property is the summation of the costs of construction, location value and other costs related to constructing a similar property subtracting depreciation if the building is in the operation stage. Banks uses floor area methods to calculate replacement costs. However, details costing has high accuracy when we compare it with other methods.

- In this study, properties are calculated by both banks' replacement method and detail costing method so that the banks scale has high deviation from detail costing here in study regarded as current market value.

- In Hawassa, outrageous figures were arrived by cause studies carried out by six real property assessments on four main district banks in the city. i. e +/- 17% which ranges(+/- 15% to +/- 20%). When we see it comparatively with developed countries trend of (+/-5% to +/- 10%) the closeness to true value is very large

REFERENCES

Abhishek Golchhal, S. (2016). Valuation of multi stored buildings for bank finance purpose.

AJIBOLA, M. O. (2010). Valuation Inaccuracy: An Examination of Causes in Lagos Metropolis. *Journal of Sustainable Development*.

Alemu, B. Y. (2014). Expropriation, Valuation and Compensation in Ethiopia. *Journal of Economics and Sustainable Development*.

Blackledge, M. (2009). *Introducing property valuation.* New York: Rutledge 270 Madison Ave.

Boshoff, D. (2011). The development approach to valuation. *E S S AYS 84 I N N O V AT E 6 2 0 1 1*.

USAID. (2005). *United States of America for international Development report.* New York.

Wyatt, P. (2013). *Property valuation.* Southern Gate, United Kingdom: John Wiley & Sons, Ltd.