How To Measure Intangible Assets And Fair Value At Banks

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Abstract*: The purpose of this research is to investigate and analyze how the difference between fair value and book value of assets bank is disclosed and how to present and disclose intangible assets. The case study qualitative research method was used in this study. Case simulation models at national private banks in Indonesia and information from informants were used in data collection and data analysis techniques. The unit of analysis is the disclosure of the fair value of assets and intangible assets at one of the national private banks in Indonesia. The results of the study informed that banks value their fair assets using fair value and are in accordance with IAS number 13 concerning fair value measurements. The Bank has also assessed goodwill intangible assets in accordance with IAS number 38 concerning intangible assets. The research results also inform that banks have implemented IFRS numbers 13 and 38 properly. The contribution of this research is to encourage regulators to apply IFRS related to banking in an orderly and correct manner so that the resulting financial information can be used as a decision-making.*

Keyword*s: Accounting, intangible asset, bank and fair value of asset.*

I.   Introduction

The phenomenon of measuring the fair value of assets and liabilities in the banking service industry is an obligation that must be carried out by banks in Indonesia in line with Indonesia's commitment to becoming a G-20 member country. The consequence is that banking in Indonesia since 2012 has implemented full adoption of IFRS which is contained in the measurement of bank financial instruments in PSAK 50 and 55. Then it develops in measuring the fair value of assets and liabilities through PSAK 68. Banks are required to report decreases and increases in assets and liabilities through measurement fair value.

In reality, banks in Indonesia must measure the fair value of sets and liabilities by assuming that the sale of assets or transfer of liabilities occurs in the principal market or the most advantageous market. The main market is the market with the largest volume and level of activity for assets or liabilities (Alfredson, 2018; Xu, 2019). While the most profitable market is the market that maximizes the amount that will be received to sell the asset or minimizes the amount that will be paid to transfer the liability after taking into account transaction costs and transportation costs. Therefore, in measuring fair value, the entity must have access to the main market or the most profitable market at the measurement date, although the entity also does not need to be able to sell assets or transfer liabilities (Ayres, et al. 2017; Pompili, M., & Tutino, 2019).

The price used in measuring fair value is the price at the measurement date under current market conditions, regardless of whether that price is directly observable or estimated using another valuation technique (Fargher, 2014). The price used does not need to be adjusted for transaction costs, because transaction costs are recorded in accordance with the applicable PSAK. The measurement of the fair value of non-financial assets takes into account the ability of market participants to generate economic benefits from these assets by using the assets in their highest and best use, or by selling them to other market participants who will use these assets in their highest and best use. In determining the highest best and use of a non-financial asset, the entity considers: physically possible use, legally permitted use and financially feasible use (Xu, 2019; Sodan, 2019; Pompili, 2019).

Due to the unique nature of intangible assets and the lack of physical substance, the measurement of these assets is quite challenging and a matter of debate (Rankin, et al., 2012). Whether intangible assets are measured at cost or their fair value, they can be used by managers in an opportunistic way to manage their earnings. For example, Reid (2017) concludes that managers tend to capitalize intangible assets at a cost incurred to maintain earnings persistence. Verification of intangible assets, in most cases, requires complicated

procedures and more effort to be carried out due to the substantial discretion that occurs at the time of measurement (Ramanna & Watts, 2017), consequently accounting for intangible assets, in particular, goodwill to provide managers and clients with important unverifiable choices.

Intangible assets and measurement of fair value is currently a serious discussion for bankers. With all these facts and information, it can be said that intangible assets and fair value measurement play an important role in influencing the level of disclosure on a bank's statement of financial position. Ongoing discussions about intangible assets and their valuation process and measurement of fair value have led to a lot of research efforts in investigating and conducting research on intangible assets and fair value valuation of bank financial instruments. This study leads to a qualitative research model to provide an analytical model of how to measure intangible assets in banking practices in Indonesia and how to analyze the measurement of fair value on bank assets classified as bank financial instruments. Therefore, the purpose of this research is to investigate and analyze how the disclosure of differences in fair value and book value and the interests of non-controlling parties in the acquisition process of an Indonesian bank.

II.   Theoretical Framework

2.1. Previous Research

Karaki S.M., (2019) in research on the effect of intangible assets and the fair market value of audit service fees on banking services in Jordan. The research was conducted on a sample of companies, namely the national bank in Jordan, which informed that intangible assets measured at fair value as a mandatory measurement effect on an IFRS basis informed that the intangible assets of the national bank companies in Jordan had a significant effect on earnings management practices. These results inform that intangible assets are used by management to exercise discretion on the measurement of intangible assets carried out by the company during the year to reduce or increase current year's profit.

Results of research conducted by Lhaopadchan, S. (2020). About Fair value accounting and intangible assets: Goodwill impairment and managerial choice. Informed that goodwill which is the difference between the acquisition cost of the investment measured at fair value and equity the fair value of shareholders is an intangible asset which is a serious principal for controlling the company's income and profits. The results of the study indicate that goodwill impairment as a form of intangible asset affects earnings management practices. The results of the study also inform that management experiences an ethical dilemma when it has to take a policy to manage company earnings to manage the opinions of investors so that the company they lead still has a good reputation.

2.2. Fair Value

The Financial Accounting Standards Board of the Indonesian Institute of Accountants (DSAK IAI) issued PSAK 68 which regulates at least the basic principles of calculating fair value. To improve consistency and comparability in measuring fair value and related disclosures, PSAK 68 establishes a fair value hierarchy that categorizes inputs into three levels. Inputs are assumptions that market participants will use when pricing an asset or liability. These inputs are categorized into three levels of the fair value hierarchy namely (Palea, 2014; Magnan, et al. 2015):

a. Input Level 1, which is quoted prices (unadjusted) in active markets for identical assets or liabilities accessible to the entity on the measurement date.

b. Level 2 inputs, namely inputs other than quoted prices included in Level 1 that are observable for assets or liabilities, either directly or indirectly.

This definition includes the price for an asset or liability:

1. For similar goods on an active market; or
2. For identical or similar goods on inactive markets; or
3. For inputs other than quoted prices, such as credit risk, default rates, and interest rates; or
4. For inputs derived from correlation with observable market data.

c. Input Level 3, which is unobservable input for assets or liabilities.

The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 input). And the lowest priority falls on unobservable inputs (Level 3 inputs). The general intent of this hierarchy is to guide the accountant through a series of valuation alternatives, where a solution closer to Level 1 is preferred to Level 3. The valuation techniques used in measuring fair value maximize the use of relevant observable inputs and minimize the use of inputs that cannot be observed. In measuring fair value, the characteristics of the asset or liability (such as condition and location, and restrictions) are taken into account if those characteristics are considered by market participants (market participants) at the measurement date.

III.   Research Method

The research method used in this study is a descriptive qualitative method with a case study approach. The use of the case study method is used to reveal research questions and also the research objective is to investigate and analyze how the disclosure of differences in fair value to book value and the interests of non-controlling parties in the acquisition process of an Indonesian bank. The object of this research is the national private banks in Indonesia that make acquisitions. In this research, the name of the bank was disguised at the request of the informant, namely Bank ABC as the acquirer and Bank XYZ as the bank being acquired. The informants in this study were the heads of the bank's accounting and internal audit work units. Disclosure of cases using bank simulation data in 2020.

IV.   Result and Discussion

In this research, a case study simulation approach is used to facilitate the understanding of the calculation and disclosure of the fair value of bank assets and how to calculate and measure bank intangible assets. As a simulation of the case that occurred at Bank ABC in Indonesia, it is known that there was a bank transaction where ABC bank acquired 70% of Bank XYZ shares on January 1, 2020, worth $1,400,000, when Bank XYZ's shareholder equity consisted of $1,000,000 share capital and $600,000 profit detained as of January 1, 2020, the book value of XYZ Bank's assets and liabilities equal fair value, except for the loan receivables which are undervalued by $40,000 and sold in 2021, and the bank's assets which are undervalued by $160,000 and have a remaining useful life of eight years from January 1. XYZ Bank's net income and dividends for 2021 are $140,000 and $20,000, respectively. Separate bank balance information for Bank ABC and Bank XYZ as of December 31, 2021, as follows (in thousands (000)) are as follows:

Table 1 Balance sheet approach was used in this research to describe resume of balance sheet statement of Bank ABC and bank XYZ.

Table 1. Balance Sheet Statement
(thousand dollar)

	Bank ABC	Bank XYZ
Cash	$ 120	$ 40
Account Receivable-other bank	880	400
Account Receivable from Bank ABC	-	20
Account Receivable-Dividend	14	-
Account Receivable-Loan	1000	640
Land	200	300
Assets Bank	1400	700
Investment of Bank XYZ	1442	-
	$ 5,056	$ 2,100
Loan-short term	$ 600	$ 160
Account payable due to Bank XYZ	20	-
Dividend payable	80	20
Loan-long term	1200	200
Equity	2000	1000
Retained earnings	1156	720
	$ 5,056	$ 2,100

Source, data processed, 2023

In this case simulation, Bank ABC wants to know how to measure intangible assets in the form of goodwill from the acquisition process of bank XYZ by bank ABC. It is necessary for Bank ABC to know this in

order to determine the excess of initial investment costs when acquiring bank XYZ in the acquisition process by considering the measurement of the excess in the fair value of the investment made by Bank ABC with the book value of the ownership acquired.

Table 2 informs that the disclosure of the fair value of assets in the form of Bank ABC's investment in Bank XYZ begins with determining the initial investment that must be paid to acquire bank XYZ with a value of $ 1,400,000.

Table 2. Calculation of Assets Fair Value
Investment in Bank XYZ

Account	Nominal
Initial investment Bank ABC in Bank XYZ is 70%	$ 1.400.000
Fair value of investment in Bank XYZ ($ 1.400 / 70%)	$ 2.000.000
Book value of Bank ABC (100%)	$1.600.000
Excess between fair value and book value of investment.	$ 400.000
Excess has been allocated in:	
Receivable-loan	$ 40.000
Fixed assets	$160.000
Intangible assets (Goodwill)	$200.000
Excess between fair value and book value of investment	$ 400.000

Source, data processed, 2023

Accordance with IFRS 13 concerning "Fair Value Measurement", fair value in this case is defined as the amount of the price received to sell an asset or the price paid in the acquisition process for an investment in a normal transaction (Jordan, 2013; Shellhorn, 2019). Therefore, the investment costs paid by Bank ABC must be revalued at fair value by dividing the investment costs paid by the transfer of Bank ABC's ownership in Bank XYZ in the amount of 70%. The results of the revaluation and measurement of the fair value of these assets obtained a value of $ 2,000,000 and the difference between the initial investment cost and the fair value of the assets obtained the result of $ 1,600 is the book value of the investment assets of Bank ABC 100%. The results of the analysis and calculations are then continued to determine the excess value between the fair value of the investment and the book value of Bank XYZ's assets, which is $400,000.

Table 3. The Calculation of End of
Investment and Amortized

Account	Nominal
Balance of initial investment, January 1	$ 1.400.000
Increasing retained earnings in Bank XYZ ($ 120 × 70%)	$ 84.000
deduct: Amortized of	
70% from excess allocated to receivable-loan	$ 28.000
70% from excess allocated in fixed assets ($ 160/8 years)	$ 14.000
Balance of initial investment in fair value, December, 31	$ 1.442.000

Source, data processed, 2023

Table 3 informs that the initial balance of Bank ABC's investment in bank XYZ on January 1 was $ 1,400,000 while the increase in Bank XYZ's retained earnings in that year was $ 84,000. Deducted by the excess allocation value of investment costs with the fair value of the investment. The excess was allocated to a receivable loan of $ 28 and fixed assets of $ 14. The results of these calculations informed that the final investment balance measured at fair value was $ 1,422,000.

Table 4. Calculation of Assets Fair Value
by Uncontrolled Party

Items	Nominal
Interest uncontrollable party December, 31	
30% Book Value of Bank XYZ, December 31 ($ 1.720 x 30%)	$ 516.000
30% from Goodwill	$ 60.000
30% Excess of unamortized intangible assets for Bank XYZ 30% x ($ 160 - $ 20 Amortized)	$ 42.000
Interest uncontrollable party December, 31 in Fair value based	$ 618.000

Source, data processed 2023

The uncontrollable interest party December, 31 can be seen in Table 4. In this study the uncontrollable interest party December, 31 can be calculated by determining the value of 30% on the book value of XYZ Bank assets $ 516 then adding the measurement results of 30% on intangible assets (goodwill). $ 60,000 and the excess over unamortized intangible assets $ 42,000. The results of these calculations inform that the final balance of investments owned by non-controlling parties is $ 618,000. Siekkinen (2016) said that fair value measurement to assets for long lived organization operation.

V. Conclusion

The purpose of this research is to investigate and analyze how the disclosure of differences in fair value and book value and the interests of non-controlling parties in the acquisition process of an Indonesian bank. The results of the study concluded that banks assess their fair assets using fair value and are in accordance with IAS or IFRS number 13 concerning fair value measurements. The Bank has also assessed intangible assets such as goodwill in accordance with IAS or IFRS number 38 regarding intangible assets. The results of the study also conclude that banks have implemented the IFRS adoption mandate relating to the banking service industry which has been fully adopted in the statement of financial accounting standards number 68 concerning fair value measurement and statement of financial accounting standards number 19 regarding intangible assets. This research only uses simulations from a small portion of banks in Indonesia with a case study approach. The impact is that research results cannot represent good results and are generally accepted. These two things are the limitations in this study. Future research can change the research model with empirical tests using panel data so that the results are expected to represent the research hypothesis. The contribution to this research requires the continuous development of financial accounting standards carried out through the application of accounting standard guidelines number 68 measuring fair value and number 19 intangible assets that are obedient and comprehensive by regulators.

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