THE ANALYSIS OF ACCOUNTING TREATMENTS BASED ON GOVERNMENT ACCOUNTING STANDARDS (GAS) ON INTANGIBLE ASSETS (IA) IN NATIONAL NUCLEAR DEVELOPMENT AGENCY

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Abstract

Government Regulation Number 71 of 2010 dated October 22, 2010 on Government Accounting Standard (GAS) states that the Government applies Accrual Based GAS and is declared in Statement of Government Accounting Standards (SGAS). While the technical accounting explanation used as a guide is published in the form of GAS Technical Bulletin. In the case of Intangible Assets (IA), the Government Accounting Standards Committee (GASC) issued Bulletin No. 17 on Accounting for Intangible Assets based on Accruals. The implementation of the Technical Bulletin was used as the basis for the preparation of the IA Report in the National Nuclear Energy Agency (BATAN). Management and Preparation of BATAN's Financial and State Property (BFSP) reports using management flows, consistency of established amortization methods, impairment, discontinuation and disposal of IA. In the preparation of the IA Report, BATAN as a government institution is increasingly required to adapt to changes in government management systems that demand accountability principles, in which every state administration must be accountable for the performance or outcomes of all programs and activities to the community for the use of resources and authority given. The result of testing of research instrument showed that IA data processing in BATAN based on the grouping of 5 categories (Copyright, Patent, Software, Result of Research / Research, and other Intangible Assets) outlined the value of the Copyright asset has the smallest value and the other IA has the greatest value (can be seen on the results of the discussion on pages 9-15).

Keywords: *Government Accounting Standards (GAS), Intangible Asset, Management, Financial Statement*

Abstrak

Peraturan Pemerintah Nomor 71 tahun 2010 tanggal 22 Oktober 2010 tentang *Government Accounting Standard* (GAS) menyatakan bahwa Pemerintah menerapkan GAS Berbasis Akrual dan dinyatakan dalam *Statement of Government Accounting Standards* (SGAS). Sedangkan penjelasan akuntansi teknis yang digunakan sebagai panduan dipublikasikan dalam bentuk Buletin Teknis GAS. Dalam hal Aset Tidak Berwujud (IA), *Government Accounting Standards Committee* (GASC) menerbitkan Buletin No. 17 tentang Akuntansi Aset Tidak Berwujud berdasarkan Akrual. Pelaksanaan Buletin Teknis digunakan sebagai dasar penyusunan Laporan IA di Badan Tenaga Nuklir Nasional (BATAN). Manajemen dan Penyusunan *BATAN's Financial and State Property* (BFSP) melaporkan dengan menggunakan alur pengelolaan, konsistensi metode amortisasi yang ditetapkan, penurunan nilai, penghentian, dan pembuangan IA. Dalam penyusunan Laporan IA, BATAN sebagai lembaga pemerintah semakin diperlukan untuk beradaptasi dengan perubahan dalam sistem manajemen pemerintah yang menuntut prinsip akuntabilitas, di mana setiap administrasi negara harus bertanggung jawab atas kinerja atau hasil dari semua program dan kegiatan kepada masyarakat. untuk penggunaan sumber daya dan otoritas yang diberikan. Hasil pengujian instrumen penelitian menunjukkan bahwa pengolahan data IA di BATAN berdasarkan pengelompokan 5 kategori (Hak Cipta, Paten, Perangkat Lunak, Hasil Penelitian / Penelitian, dan Aset Tidak Berwujud lainnya) diuraikan nilai aset Hak Cipta memiliki nilai terkecil dan IA lainnya memiliki nilai terbesar (dapat dilihat pada hasil diskusi pada halaman 9-15).

Kata Kunci: Standar Akuntansi Pemerintahan (GAS), Aset Tak Berwujud, Manajemen, Laporan Keuangan

1. INTRODUCTION

1.1. Background Research

The financial reports of an entity at the end of the accounting period are used as sources of information and financial data whose results can be used for decision making. Therefore, records in the financial statements should be adjusted and apply generally enforceable standards in a State, and should make reasonable representations regarding the financial statements of honest presentation of the impact of transactions, events and other conditions in accordance with the definition and criteria of asset recognition, liabilities, revenues and expenses, with additional disclosures in the notes to the financial statements where necessary.

The Financial report of the Nuclear Energy Agency (BATAN) Year 2016 is a report covering all financial aspects managed by BATAN. This Financial Report is generated through Accounting System (AS), which is a series of manual and computerized procedures starting from data collection, recording and

summarizing up to the reporting of financial position and financial operations at the State Ministry / Institution.

AS consist of Accounting System of Accrual Based Institution (ASABI) and Management Information System and Accounting of State Property (MISA-SP). ASABI is designed to produce a Unit Financial Statement consisting of Budget Realization Reports, Balance Sheet, Operations Report, and Equity Change Report. While MISA-SP is a system that produces information of fixed assets, inventory and other assets (IA) for the preparation of balance sheet and Reports of state property as well as other managerial reports.

Intangible Assets are non-monetary assets that do not have a physical form, and are one type of asset owned by ministries / agencies / local governments. This asset is often associated with the results of the activities of the entity in carrying out its tasks and functions of research and development and partly derived from the procurement process from outside the entity. The value of intangible assets is increasingly taken into account, one of the most noteworthy evidence of intangible assets according to Harrison and Sullivan (2000) research is that the development of intangible asset values in America has a positive trend. In the 1970s, the ratio of market value to book value in America reported by Standard & Poor was 1: 1, but this ratio has widened to 1: 6 in 2000. The findings are reinforced by a study by Sullivan (2000) that in the 2000s, the value of intangible assets dominated the market value of firms in the US capital market, which is worth about 80% of the market value of the firm.

The Indonesian Accounting Association (2009) under PSAK No.1 revision 2009 effective January 1, 2011 sets out the basics for the presentation of financial statements, with the aim that the financial statements may be comparable both with the financial statements of the previous period and with the financial statements of other entities. One asset that is still difficult to quantify and to present its value is an intangible asset. This research is conducted by analyzing the accounting treatment based on GAS on IA in BATAN which is listed in BATAN Financial Report which presents intangible asset information in the form of patent, software, copyright, other research study result and intangible asset.

Based on research conducted by Nurani (2012), that of 87 companies analyzed the quality of its financial statements as many as three companies or 3.45% of the total companies that have intangible assets meet the four criteria set. Based on these studies illustrate that there are still many companies that do not present the intangible asset information in their financial statements, it is contrary to the purpose of financial statements when the information does not present honestly the transactions, events, and other conditions whether requested. to be presented or reasonably presented and consequently, such information may affect the economic decisions of users of financial statements.

Analysis of the presentation of intangible assets in accordance with IAI (2009) in PSAK No.1 revision 2009, ie by undertaking post analysis of intangible assets in the form of patents in the statement of financial position if the value of intangible assets is considered material, and post asset if the asset value intangible is considered immaterial and may be combined with other posts, as well as analyzing the presentation of intangible asset information on notes to the financial

statements. The financial position report on the value of intangible assets considered immaterial may be combined with other items, but in the notes to the financial statements, the value of the intangible assets not material remains to be presented separately.

1.2. Identify the Problem

Based on the description of the previous background, the identifiable issues are as follows:

1) BATAN is increasingly required to adapt to changes in government management systems that can demand accountability principles.
2) BATAN should be able to account for the performance or results of all programs and activities to the community for the use of resources.
3) State Property Reporting in the form of IA is used as amortization material of BMN owned by echelon II work unit in BATAN.

1.3. Formulation of the problem

Based on the title and background of the research that the author has described before, then found the formulation of the problem as follows: How to measure and analyze the accounting treatment of Intangible Assets (IA) based on GAS?

1.4. Objectives and benefits

To know Accounting Treatment Analysis Based on Government Accounting Standards (GAS) on Intangible Assets (IA) Work Unit at National Nuclear Energy Agency.

1) To measure and analyze the accounting treatment of Intangible Assets treatment under GAS.
2) To know the weakness or deficiency of IA management to work unit in BATAN and as input / recommendation of policy maker in order to improve BATAN performance in the future.

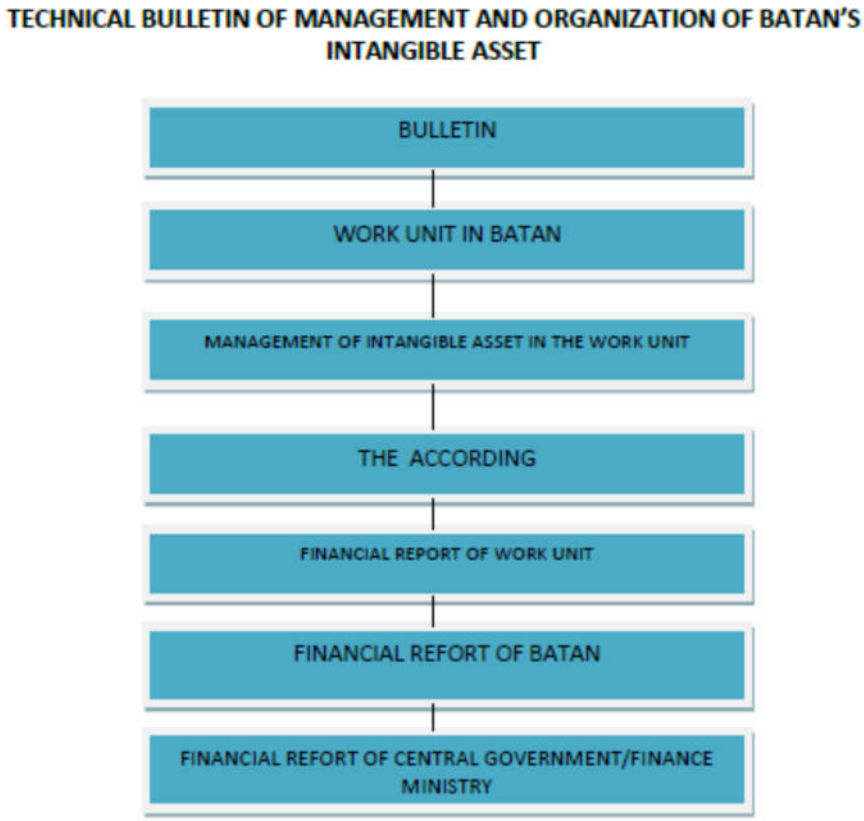
2. LITERATURE REVIEW

2.1. Theoretical basis

Intangible Assets are nonfinancial assets that can be identified and not possessed physically and owned for use in the production of goods or services or used for other purposes including intellectual property rights. These assets are often associated with entity activity results (BATAN) in performing research and development tasks and functions as well as partially derived from the procurement process from outside the entity. The IA definition requires that IA meet the criteria that can be identified, controlled by the entity, and have potential future economic benefits. IA owned by BATAN has been widely proven by the recognition of authorized agencies to issue certificates / Intellectual Property Rights to IA BATAN. BATAN identifies and controls IA in order to obtain future economic benefits because of its technical knowledge.

2.2. Management Flow IA BATAN

The flow of the Technical Guidelines for the Management and Compilation of the IA Report in the BATAN environment is structured to facilitate the use of the Work Unit in the BATAN environment, the flow can be seen in the following flow chart:



2.3. Base of Accounting

BATAN's Financial Statements apply the accrual basis in preparing and presenting the Balance Sheet, Operations Report, and Statement of Changes in Equity and cash basis for the preparation and presentation of the Budget Realization Report. The accrual basis is an accounting basis that acknowledges the effect of transactions and other events at the time the transactions and events occur, regardless of when cash or cash equivalents are received or paid. While the cash basis is the accounting basis that recognizes the effect of transactions or other events when cash or cash equivalents are received or paid. This is in accordance with Government Accounting Standards (GAS) that has been established with Government Regulation No. 71 of 2010 on Government Accounting Standards (GAS).

2.4. Basic Measurement

Measurement is the process of determining the value of money to recognize and include each post in the financial statements. The measurement basis applied by BATAN Financial Report in preparing and presenting the Financial Statement is to use historical value. Assets are recorded at the expense / use of economic resources or at fair value of the benefits provided for acquiring the asset. Liabilities are recorded at the fair value of economic resources used by the government to meet the obligations concerned. Measurement of financial aid items using rupiah currency. Transactions using foreign currencies are converted first and denominated in rupiah.

2.5. Accounting Policies

The preparation and presentation of the 2016 Financial Statements has been referred to Government Accounting Standards (GAS). The accounting policies are the principles, basics, conventions, rules and specific practices chosen by a reporting entity in the preparation and presentation of financial statements. The accounting policies adopted in these financial statements are the policies established by BATAN. In addition, in the preparation has been applied rules of sound financial management in the government environment.

2.6. Criteria of BATAN Intangible Assets

The accounting policies in the management of other assets refer to GAS, Other Assets are Government Assets other than Current Assets, Fixed Assets, and Long-Term Receivables. Included in Other Assets are Intangible Assets, and Other Assets. The IA definition requires that IA must meet the criteria that can be identified, controlled by the entity, and have potential future economic benefits. Intangible Assets within the BATAN are regulated in BATAN Head Regulation No. 3 of 2016 concerning Management of Intangible Assets. The amortization of IA with a limited useful life is done using the straight-line method and the residual value of nil. While on IA with unlimited period of service is not made amortization. The useful life of IA shall be determined by referring to the Decree of the Minister of Finance No. 620 / KM.6 / 2015 on the period of benefit for the amortization of State Assets in the form of intangible assets of the Central Government entity. In general, the useful life table is as follows:

Group of intangible assets	Benefits period
Patent	20 years
Software computer	4 years
Franchise	5 years
License, Simple Patent, Brand, Industrial Design, Trade Secret, Layout Design of Integrated Circuit.	10 years
Economic Rights of Broadcasting Institutions, Patent Ordinary, Variety Protection of Annual Plants	20 years
Copyright of Applied Art Works, Annual Plant Variety Protection	25 years

Copyright for Creation Group II, Economic Rights Performer of Performance, Economic Rights of Producer Phonogram	50 years
Copyright of Creation Group I	70 years

Intangible assets owned by BATAN has been widely proven by the recognition of authorized agencies to issue certificates / Intellectual Property Rights to IA BATAN. BATAN establishes and controls IA in order to obtain future economic benefits due to its technical knowledge. List of Granted Patents in BATAN can be seen in Appendix 1.

2.6.2. Presentation of Intangible Assets

Intangible Assets are presented on the Balance Sheet's face sheet at net carrying amount, at cost less the accumulated amortization. As in Annex I of Government Regulation Number 71 Year 2010 concerning Government Accounting Standard. Intangible Assets are presented in the Financial Statements as a balance sheet as part of Other Assets. The BATAN Financial Statements are prepared under an adequate internal control system, and their contents provide information on the proper implementation of budget and financial position in accordance with Government Regulation Number 71 of 2010 on Government Accounting Standards (GAS) and based on sound financial management principles within the government. BATAN 2017 Financial Report can be seen in appendix 1.

2.6.3. Measurement of Intangible Assets with the Straight-Line Method

The amortization adopted in BATAN is carried out under various straight line methods, to amortize the IA based on the expected future economic consumption patterns expected and applied consistently from one period to the next, unless there is a change in the expected consumption pattern. The amortization period and the amortization method are reviewed at least at the end of every financial year. If the estimated useful life of the asset differs significantly from previous estimates, the amortization period should be adjusted. The Amortization Method formula for IA based on Government Regulation No. 71 on GAS is:

REDUCTION	**:**	**INCOME PRICE – REMNANT VALUE ECONOMICAL PERIOD**

3. RESEARCH METHODOLOGY

3.1. Place of Research

This research uses descriptive research design. Descriptive research aims to describe precisely the traits of an individual, a particular group, or to determine the frequency of spreading of a symptom, or the frequency of the existence of a certain influence between another phenomenon in society (Indriantoro and Supomo,1999). Technique of collecting data and information in this research using secondary data obtained from BATAN literature and document. The data

needed to answer the research objectives is the data of state property (intangible assets). The location of the research was conducted at the General Bureau, BATAN Head Office, Jakarta. The time required to complete the research is 3 Months.

3.2. Analysis of Intangible Assets

Data processing is done by inputting financial data in Microsoft Office Excel application then process and analyze it. Recapitulation of IA data along with its analysis is done by entering secondary data coming from work unit and based on Accounting Management Information System (AMIS) of State Property (SP). The data are then processed and presented graphically and analyzed. Method of data analysis in this research is by using formula of amortization method for IA that is.

REDUCTION	**:**	**INCOME PRICE – REMNANT VALUE ECONOMICAL PERIOD**

4. RESULT AND DISCUSSION

4.1 Descriptive Analysis of ATB in BATAN

The object of this research is 23 echelon II work unit in BATAN with period of financial report per June 30, 2017. The data is then processed and grouped into 5 categories namely Copyright, Patent, Software, Result of Research / Research, and Intangible Assets. From the result of data processing of financial report of work unit in BATAN obtained information as following graph.

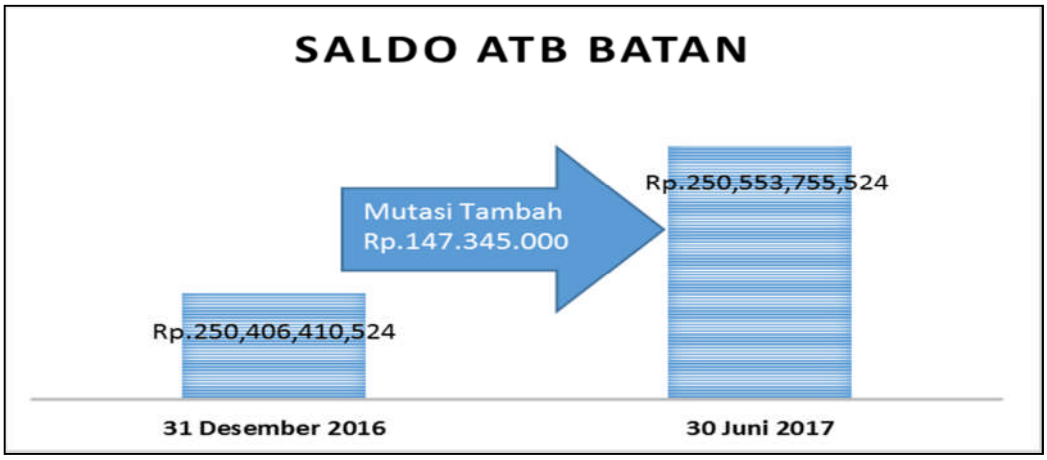


Figure 1. Balance Graphics ATB BATAN

As of June 30, 2017, the balance of intangible assets as of 30 June 2017 and 31 December 2016 amounted to Rp250,553,755,524.00 and Rp250,406,410,524.00, respectively. In the report there is a mutation of Rp147.345.000,00. The

movements of intangible assets are derived solely from added mutations in the purchase of software valued at Rp112,695,000.00 and the addition of other intangible assets of Rp34,650,000.00. IA data processing results in BATAN based on the grouping of 5 categories (Copyright, Patents, Software, Research Results / Research, and Other Intangible Assets) are described as the following graph.

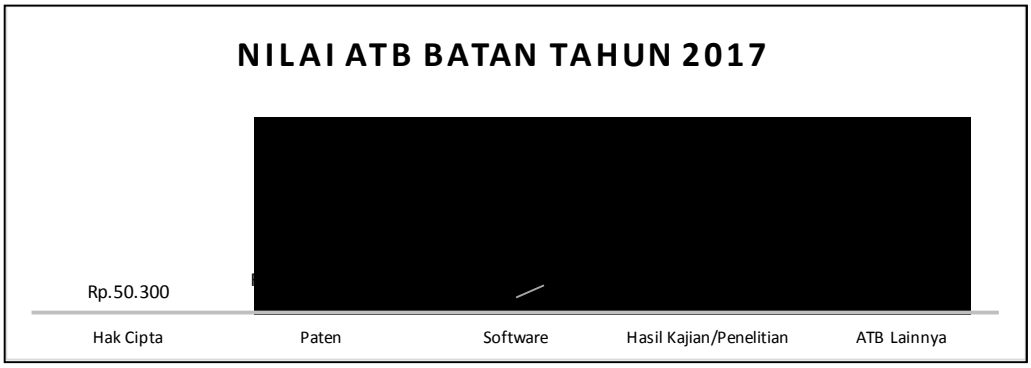


Figure 2. Graph of ATB BATAN Value

Based on the graph above, it can be seen that the value of Copyright asset has the smallest value and the other IA has the greatest value. In detail the value of IA BATAN in 2017 is described as follows:

1) The Copyright Balance in the User Item Report of First Semester of 2017 per June 30, 2017 amounting to 1 unit of Rp50,300,000.00.
2) Patent Balance in the Report of First Half Users of the Year of 2017 per June 30, 2017 of 41 pieces worth Rp4.438.703.000,00 (list of patents attached). The amount consists of the initial balance of total goods amounting to 41 pieces worth Rp4.438.703.000,00. Patents that do not have the value of 15 patents and 1 PVT (protection of plant varieties).
3) Software Balance on User Reports of First Half Year of 2017 as of 30 June 2017 amounting to 492 worth Rp19.190.086.887,00. The amount consists of an initial balance of 492 amounting to Rp19,077,391,887.00. There is a mutation added by the amount of goods 3 pieces with the value of Rp112.695.000,00 that is at Work Unit of Science Center of Advanced Material Technology (WUSCAMT) worth Rp36.300.000,00 and Unit Working Center of Nuclear Engineering Facility (UWCNEF) worth Rp76.395.000,00 and there is no less mutation.
4) Balance of Study Results / Research on User Item Report of First Semester of 2017 per June 30, 2017 amounted to 14 worth Rp583.219.000,00. The amount consists of the initial balance of total goods amounted to 14 pieces worth Rp583.219.000,00. There is no added mutation and less mutation in the first half of 2017.
5) Other Intangible Assets Balance in the Report of Goods Users of First Semester of 2017 per June 30, 2017 amounted to 38 pieces worth Rp226.291.446.637,00. The amount consists of the initial balance of total goods amounted to 37 pieces worth Rp226.256.796.637,00. There is a mutation plus a number of 1 pieces at the work unit of Dissemination and

Partnership Center (DPC) of Rp34.650.000,00. There is no less mutation in the first half of 2017.

Value of the above details is obtained by collecting data of IA in the work unit of echelon II. Each work contributes the amount and value of IAs that vary according to their capacity. In detail, the following graph describes the amount of IA in the form of a patent on a work unit.

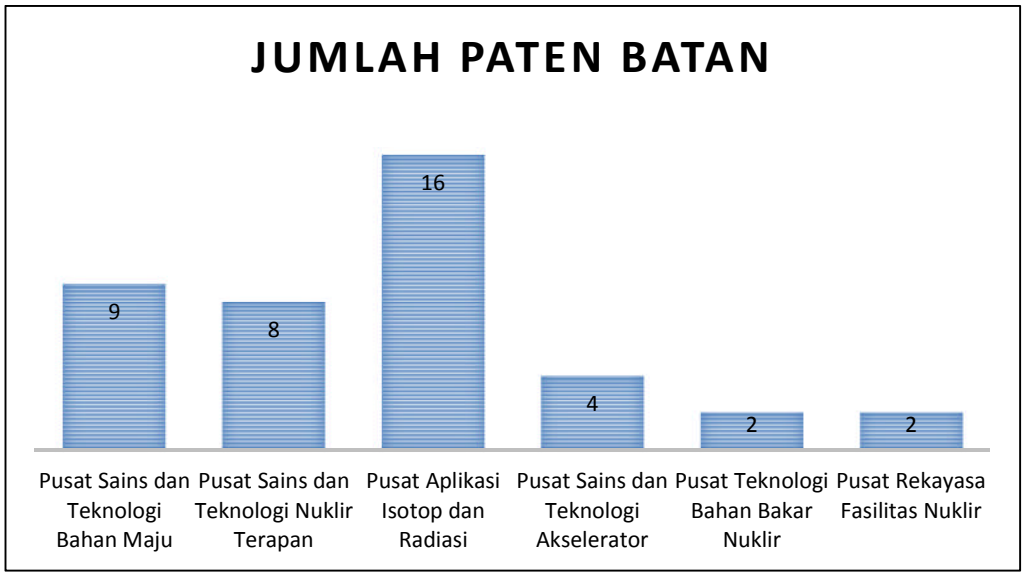
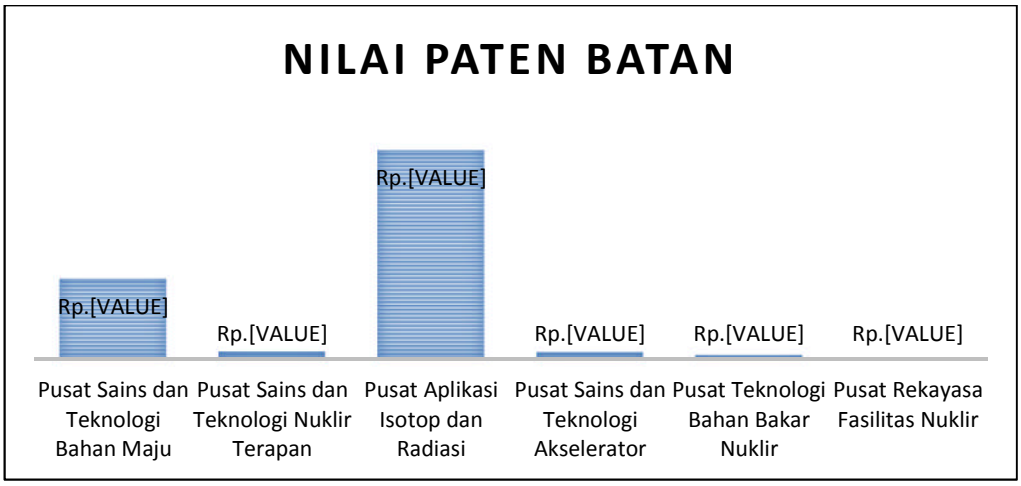


Figure 3. Number of BATAN's Patent Graph



Based on the graph above, it can be seen that the working unit of Isotope and Radiation Application Center (IRAC) hasIA amount of Patent at most 16 Patents. While the Unit that has the least amount of Patent is the Center of Nuclear Fuel Technology (CNFT) and Nuclear Facilities Engineering Center (NFEC) that is

each of 2 Patents. In terms of asset value, the IRAC work unit has the greatest asset value, but the unit with the least value of the Patent asset is NFEC.

Another form of ATB is software. Most of the software owned by BATAN is obtained by buying, and a few others are acquired by developing internally. IA value of software in each work unit is different. Work units that have assets of software with the smallest value is the Pusdiklat that is (Rp.960.000) while the work unit that has assets in the form of software with the greatest value is the Nuclear Reactor Safety Technology Center (NRSTC).

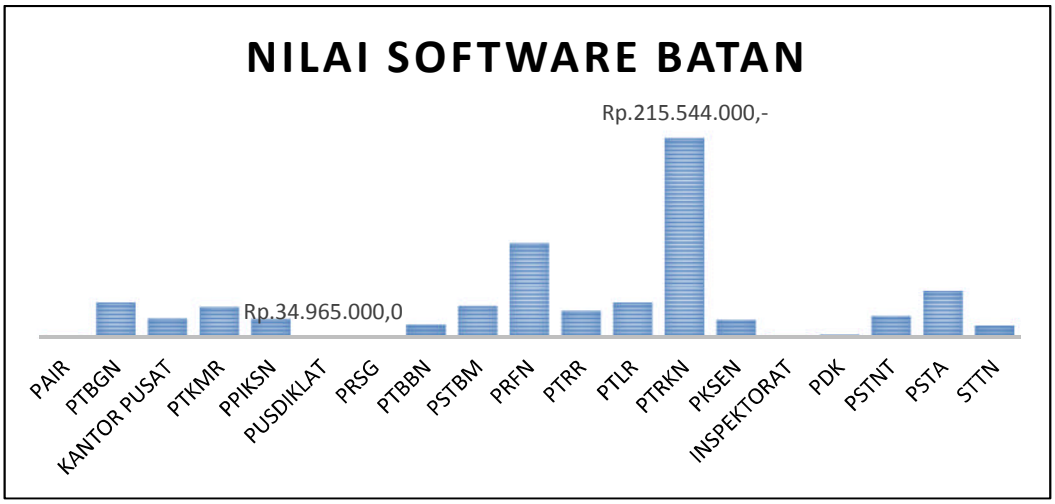


Figure 5. Graph of ATB Value of Software in BATAN

The results of the study / research are also IAs that have value. Echelon II work unit that has IA value of the greatest study result is Accelerator Science and Technology Center (ASTC) that is Rp.215.544.000, - ,. While the unit that has the smallest IA is Center for Advanced Materials Science and Technology (CAMST) of Rp.34.965.000, -

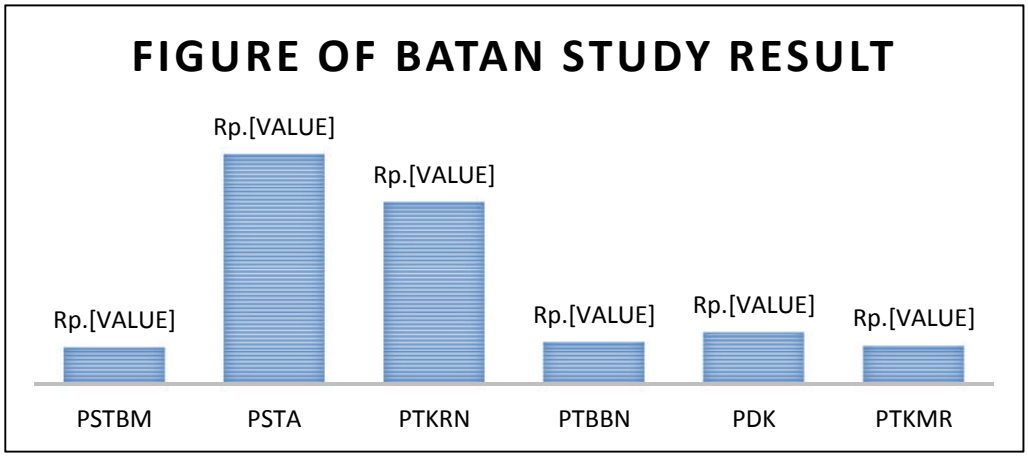


Figure 6. Graph of Study Results in BATAN

4.2. IA Amortization Calculation Analysis in BATAN

BATAN applies amortization calculations at the end of the financial year. The amortization calculation is based on the following formula.

$$\text{Penyusutan} = \frac{\text{Harga Perolehan} - \text{Nilai Sisa}}{\text{Umur Ekonomis}}$$

The amortization calculation is done by using Microsoft Excel application that is by inputting data and reducing with residual value, then the result divided by economic age. The economic life value for the patent is 20 years, the economic life value for PVT copyright is 25 years, and the economic life value for the software is 4 years. The following is the result of AMB amortization calculation in BATAN.

Table 1. Calculation of ATB Depreciation Value in BATAN

Balance Account	Price of income (Rp)	Left over rate (Rp)	Economics period (YEAR)	Decrease = (Price of income – Left over rate) / Economic period
Copyrights	50.300.000	48.144.285	25	2.155.715
Patent	4.438.703.000	2.056.656.900	20	2.382.046.100
Software	19.077.391.887	3.423.291.222	4	15.654.100.665
Study result/Research	583.219.000	583.219.000	-	0
Other intangible assets	226.256.796.637	226.256.796.637	-	0

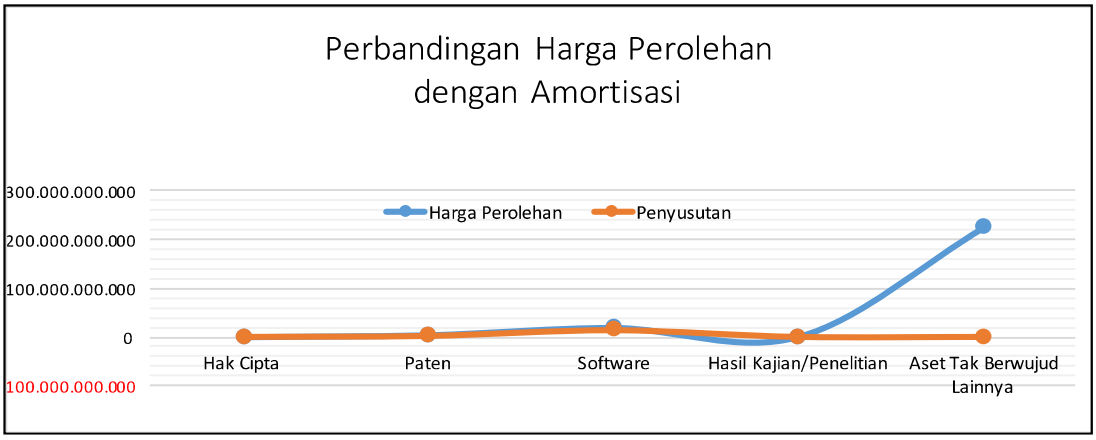


Figure 7. Price Graph of Acquisition Cost with Amortization

Based on the comparison graph between the purchase price and depreciation it is seen that the other IA has the biggest gap that is the value is very high while the amortization value is 0 or can be said no.

5. CONCLUSION

Intangible assets though they are not existent but include property owned by the company and should notbe ignored. When investors will invest in the company, intangible assets are also often noticed because these intangible assets will create a cash flow for the company in the future and generally have a longer service life compared to fixed assets. Patent, goodwill, franchise, copyright are some of the examples of intangible assets. The costs associated with intangible assets are amortization costs and losses due to impairment of the value of the intangible asset (carrying value > recoverable amount). Costs associated with research are not an intangible asset while development costs are considered as intangible assets.

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