**Keberlanjutan : Jurnal Manajemen dan Jurnal Akuntansi**
http://openjournal.unpam.ac.id/index.php/keberlanjutan/index
Volume 7 (1) 2022, 1-15

# Warehouse lease transactions valuation between related parties

**Ferry Irawan[1*], Sari Marina Hutabarat[2], Imam Muhasan[3]**
[1,3]Politeknik Keuangan Negara STAN, Indonesia
[2]Direktorat Jenderal Pajak, Indonesia

**Authors email :**
ferryirawan80@gmail.com[1*]
sariihutabarat@gmail.com[2]
imam.muhasan@pknstan.ac.id[3]
*)Corresponding author

**Abstract**
Valuation of lease transactions has implications for tax obligations. This study aims to understand the valuation process implemented on warehouse lease transactions between related parties at Padang Dua Tax Office and to figure out the obstacles during the valuation process. This research uses qualitative methods, and the findings revealed that the valuation is conducted based on Directorate General of Taxes Circular of SE-54/PJ/2016. The obstacles found are generally related to data collection and the valuers' lack of experience in particular valuation.

**Article Info**

*Article history:*
*Received: 2021-08-30*
*Accepted:* 2022-03-26
*Published: 2022-08-04*

**Keywords:** Market Value, Related Parted, Valuation

***Abstrak***
Bentuk penilaian atas aset di antaranya adalah penilaian atas sewa menjadi salah satu unsur penting dalam pemenuhan kewajiban perpajakan. Penelitian ini bertujuan untuk mengetahui mekanisme penilaian yang dilakukan atas transaksi persewaan Gudang antarpihak berelasi (related party), dan untuk mengetahui kendala yang dihadapi selama proses penilaian dimaksud di Kantor Pelayanan Pajak Pratama Padang Dua. Penulis menggunakan metode deskriptif kualitatif. Temuan penelitian menunjukkan bahwa penilaian dilakukan berdasarkan ketentuan yang berlaku, yaitu Surat Edaran Nomor SE-54/PJ/2016. Kendala yang dihadapi pada umumnya terkait dengan pengumpulan data, dan kurangnya pengalaman pejabat Penilai dalam melaksanakan penilaian bisnis.

**How to cite item (APA Style) :**
Irawan, F., Hutabarat, S,M., & Muhasan, I. (2022). Warehouse lease transactions valuation between related parties. *Keberlanjutan : Jurnal Manajemen dan Jurnal Akuntansi*, 7(1), 1-15
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

## Introduction

Most companies consider significant opportunities in the logistics industry in Indonesia today, along with the community's increasing needs, technological advances, and better economic growth (Wulan & Setyawati, 2018). The shift from the retail to the digital industry due to technological advances has triggered an increase in warehousing services. It can be seen from the tax contribution of the transportation and warehousing sector which has increased. Based on the realization of total tax revenue in 2019, tax revenue from the transportation and warehousing sector grew by 18.7% compared to 2018.

In addition to using warehousing services, companies that need a place to store merchandise and manufactured goods can also rent warehouses from other parties. The demand for warehouse rental reflects the company's need for warehousing activities, while the warehouse rental price reflects the availability of warehouses that can meet the company's needs (Lim & Park, 2019).

Despite much competition for warehouse rentals, price is one of the essential factors consumers consider in making decisions (Zulaicha & Irawati, 2016). In theory, the optimal price is achieved from equilibrium when the amount of goods or services follows the market's desire and ability to obtain goods or services (Ma et al., 2018). It is not very easy to obtain such information in the market. The information available in the market does not directly lead to the optimal price (Ma et al., 2018).

In a transaction, the amount of the price set depends on the presence or absence of the owner's interest in making a profit (Dermawan & Gusda, 2014). However, Law Number 7 of 1983 concerning Income Tax as amended several times, most recently by Law Number 36 of 2008 concerning the Fourth Amendment to Law Number 7 of 1983 concerning Income Tax stipulates that the determination of the price of any transaction must take into account the reasonableness and customary of business. It is not influenced by unique relationships so that a transaction is carried out within reasonable limits under the customs of good business actors.

Unfair relationship transactions tend to aim at tax avoidance. When independent parties transact with other parties, commercial and financial relationships are both affected by market prices, but not if the parties transacting have a special relationship (Lamria, 2012). A transaction is considered between parties with a special relationship if one party significantly influences financial and operational decisions (Rosad et al., 2020). This unique relationship transaction is the leading cause of transfer pricing practices. Concerning transaction prices between parties with a special relationship (related parties), the Directorate General of Taxes (DGT) has the authority to re-determine the amount of income to calculate the amount of Taxable Income for taxpayers who have unique relationships with other taxpayers under reasonableness and prevalence. The business is not affected by a special relationship (Article 18 paragraph (3) of the Income Tax Law). Re-determination of the amount of income due to indications of income irregularities from transactions between parties with a special relationship can be done through a valuation process by the Tax Appraiser.

McNair et al. (2010) explained that the arm's length principle approach in completing transactions carried out by related parties consists of several methods, including the comparable uncontrolled price (CUP) method, the cost-plus method, and the resale price method. The transactional net profit method (transactional net margin method) and the profit split method. Sikka & Willmott (2010) also expressed a similar opinion that, in general, taxpayers and tax authorities use the CUP method, the cost-plus method, the resale price method, the transactional net margin, and the profit split method. Tax auditors can use the proper method to test compliance in examining transfer pricing (Valente, 2012). The transfer pricing method made by the Taxpayer may differ from the approach taken by the tax authority. It happens because of the differences that arise when conducting a comparability analysis (Valente & Caraccioli, 2017). Each party needs transparency in determining the proper transfer pricing


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

method, namely the Taxpayer and the tax authority (Kamdar, 2018).

Furthermore, Kamdar (2018) argues that the resale price and cost-plus methods are the most appropriate methods to use if the Taxpayer has an internal comparison. A comparison of the use of the transfer pricing method in transactions for both goods and services was carried out by Challoumis (2019). He believes that using the proper transfer pricing method can be done systematically so related party transaction problems can be handled appropriately.

The study on the use of transfer pricing methods is also discussed by Matavulj (2021). The transfer pricing method is theoretically based on three approaches: cost-based transfer pricing, market-based transfer pricing, and negotiated transfer pricing (Panjalusman et al., 2018). Furthermore, Matavulj's (2021) research concludes that the cost-plus method is generally more appropriate than the transactional net margin method. To determine a fair price, using more than one method is advisable. The basis used in determining the method is the availability of comparative data, the degree of comparability, and conformity to the character of the company's business (Gjorgieva-trajkovska et al., 2019). Alternatives to the use of transfer pricing methods are discussed in a study conducted by Mills (2019). He argues that other approaches, such as safe harbor and advance pricing agreements, can be carried out in conjunction with the arm's length principle to overcome transactions by related parties. Disclosure of transfer pricing methods in the company's financial statements can be influenced by the presence of independent commissioners (Apriyanti et al., 2020)

Previous research generally discusses the use of transfer pricing methods that are known in general. However, not many studies discuss the use of the valuation method in determining a transaction's price or fair value. The novelty of this research compared to previous research is that this research provides technical elaboration in conducting a valuation to determine the fair price of a transaction carried out by a related party. It is beneficial for taxpayers and tax authorities to get the most suitable price/value.

## Literature Review

Determination of transfer value between related parties in warehouse rental transactions to influence financial statements results in information asymmetry between the directorate general of taxation as the principal and taxpayers as agent (Jensen & Meckling, 1976). For this reason, transactions carried out by related parties must be able to show the appropriate and fair value so that the income tax borne by the Taxpayer is appropriate.

Value is difficult to describe because it can mean usefulness or purchasing power (Wyatt, 2007). According to Djaja (2018), value is an economic concept that refers to the financial relationship between goods and services available for purchase and buyers. In other words, value can be summarized as benefits or advantages measured in money or not, for ownership of goods, services, or other objects.

Along with the times, the definition of value also develops from time to time. This development is evidenced by the division of the definition of value by type, such as market value, fair market value, value in use, exchange value, investment value, rental value, and liquidation value. The definition of each type of value describes the goals the rater wants to achieve so that different value definitions can produce different value estimates (Kummerow, 2002).

Appraisal Institute (2007) describes that four economic factors can create value, namely (1) desire which describes the buyer's demand for goods or services to meet their needs or desires, and (2) utility which describes the ability of goods or services to fulfill their desires or needs. People, (3) scarcity refers to the relative level of supply that can meet the demand for goods or services, and (4) Effective purchasing power, which describes the ability of individuals or groups to participate in the market. These four factors can also be referred to as value characteristics because goods, services, or assets can be said to have value if they meet these four factors. In addition, value is closely related to price and cost, even though these three things


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

have different concepts.

Value and judgment are terms that are often used interchangeably. A valuation can mean the estimation of the value of something. The essence of valuation is to estimate the possible price of a transaction (Maliene, 2011). Valuation is an art that relies on perspectives, such as assumptions, estimates, and projections of work plans that are used as considerations and sometimes subjective justifications (Djaja, 2017).

Kummerow (2003) states that four things form the basis of valuation theory, namely (1) value is equal to the discount on the expected future benefits of ownership, (2) value is proportional to the expected utility of various property characteristics, (3 ) the price is not attached to the property but is known from transactions in the market. The value of an asset is equal to the price a person is willing to pay at that time, and (4) the price tends to change towards equilibrium, i.e., when supply and demand are in balance and prices are no longer changing. However, this process takes time, so the market is usually not in equilibrium. In practice, the valuation process contains an element of uncertainty (Prasetyo, 2018). This uncertainty can be in the form of the uncertainty of information obtained from the comparison object, the uncertainty of current and future market conditions, and uncertainty of the characteristics of the object of valuation (French & Gabrielli, 2004). Therefore, to produce a value that reflects the actual value of an object valuation, it is necessary to apply the principles of valuation, valuation procedures, approaches, and appropriate valuation methods.

Kucharska-Stasiak and róbek (2015) state that the valuation results can be more accurate and the interpretation of the resulting value will be more accurate if the Appraiser understands the economic principles used in the valuation principle. In addition, understanding these principles is also essential to support the assessor in understanding the methods and approaches in the valuation. In many pieces of literature, the basic principles of valuation have been formulated, namely the principle of anticipation, the principle of change, the principle of supply and demand, the principle of competition, the principle of substitution, the principle of increasing and decreasing income, the principle of contribution, the principle of conformity, the principle of balance, the principle of external influence, and the principle of highest and best use. Some of these principles are relevant to all valuation approaches, but some only apply to specific approaches.

Kucharska-Stasiak and róbek (2015) describe the role of some of the most frequently used valuation principles, namely (1) the principle of anticipation is a fundamental economic principle in valuation which is generally used in the market data approach which is reflected when market data shows certain habits in the market and the approaching income when building a model of income generated by property in the income approach, (2) the principle of substitution is used in all approaches because this principle can be seen from the point of view of how it is used, construction costs, and income received, (3) the principle of change is used in all approaches because changes occur continuously so that the value becomes dynamic, (4) the principle of demand and supply which shows demand as a relative scarcity of property so that it becomes a critical factor in creating value and supply has a significant influence on value, (5) the principle of opportunity cost is used in this approach. Income to estimate the minimum rate of return desired by investors, (6) the principle of balance to determine the efficient use of limited resources, and (7) the principle of decreasing and increasing income used in all valuation approaches.

Business valuation is one valuation carried out on companies, such as investments (equity), companies, securities, derivative instruments, company rights and obligations, and economic losses. Business valuation is a process to determine the general company value of the whole or part of the business (KEPI and SPI Edition VII, 2018). The Circular Letter of the Director General of Taxes Number SE-54/PJ/2016 also defines business valuation as a series of activities to determine the amount of a specific type of value at a particular time which is carried


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

out objectively and profseessionally based on a valuation standard. To implement the provisions of tax laws and regulations on a going concern, including various interests and ownership (business ownership interest), as well as transactions and activities that influence the value of the company.

There are two value premises in business valuation: the value of going concern business and liquidation (liquidation business). Köseoğlu and Almeany (2019) describe that the value of business continuity represents the company's value if the company is sold in an integrated condition, meaning that all asset groups can be utilized according to expectations and are interconnected. The concept of liquidation value relates to a group of assets in a company that cannot be utilized as expected so that the market value of a group of assets is lower than the condition when these assets can be utilized as expected. The premise of the value to be used must be determined in identifying the problem because it will affect the process of selecting and analyzing the data in the next step.

In general, business valuation procedures are the same as for other valuations. However, in business valuation, the cost approach is known as the asset approach, so the approaches used in business valuation are the market data approach, the revenue approach, and the asset approach. The market data approach compares the company being assessed with other companies (Smith, 2012). The comparison company should come from the same or similar industry and react similarly to changes in various economic variables (KEPI and SPI Edition VII, 2018). The income approach is carried out by considering the present value of income or profits anticipated in the future. Income is converted to an indicative value through the direct capitalization method of the income level considered representative, discounted cash flow analysis, or the dividend method. Cash received is estimated to occur sequentially in the future and is converted to present value through the application of a discount rate (KEPI and SPI Edition VII, 2018).

The asset approach is based on the value of the company's net assets. The asset approach is carried out by adjusting the company's financial statements that present all tangible and intangible assets and liabilities at market values or values considered fair (KEPI and SPI Edition VII, 2018). This approach is most often used to assess holding companies, companies with poor financial performance, and for liquidation purposes (Smith, 2012). However, in practice, many appraisers do not use the asset approach because they conclude that it is too difficult to apply, requires more analysis time, and does not apply to private companies (Kirk & Wishing, 2018).

The choice of analysis for the business valuation approach is determined by the quantity and quality of available data. Each valuation approach is applied using a method that is believed to reflect the most probable value estimate. According to Torrez et al. (2006), in business valuation, the Discounted Cash Flow (DCF) method is a primary method that is often used to determine the current value of a company based on forecasts of future cash flows. In addition, the Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Models (APM) are the most frequently used methods to relate market risk and return on equity in the income approach.

Valuations using the DCF method focus on one of several proxies of expected cash flows (Torrez et al., 2006). The value of an asset is a function of the expected cash flows in the asset (Damodaran, 2006). There are four ways to use the DCF model according to Damodaran (2006), namely (1) discounting the expected cash flows from assets using an adjusted discount rate to get the asset value; (2) adjusting the expected cash flows to risk so that the cash flows are considered commensurate with the risk because the cash flows are discounted at the risk-free interest rate to obtain the value of the risky asset; (3) using the adjusted present value by calculating the value of the company without taking into account the debt effect and then calculating the marginal effect on the value of the debt loan; and (4) valuing the firm as a function of the expected excess return on the return on investment.


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

The Capital Asset Pricing (CAPM) model shows the relationship between the expected rate of return and the systematic risk of a security or portfolio commonly used to estimate excess returns and the cost of capital (Torrez et al., 2006). CAPM can be applied to closed companies that do not have historical stock price returns to calculate the beta factor, or historical returns cannot be used as a proxy for future returns. For example, the company's strategic decision to change its business model (Gleißner & Ernst, 2019). The excess earning method is one method that can be used in the asset approach. Paschall (2001) states that the method of excess income is valuing the company in two, namely the tangible value of the company using the company's tangible net assets and the company's intangible value. It is calculated by capitalizing the company's excess revenue from modest income over its tangible net assets.

Market value is the most widely used value in valuation. Value in property valuation is generally extrinsic and not intrinsic because property value reflects the property's relationship with the market (Sanders, 2018). According to the Appraisal Institute (2014), the market must be known for its existence to create market value. The formation of a market perspective for opinion development can be referred to as the process of creating market value (Kummerow, 2002). A value is referred to as market value if it meets the criteria (1) the buyer and seller intend to make a transaction, (2) the buyer and seller have sufficient knowledge and information, (3) the offer is made within a sufficient period, (4) is carried out in the market open, and (5) does not consider privileged buyers or sellers.

Sanders (2018) states that the property market is imperfect and inefficient in practice, so market values that match these criteria are difficult to meet. It causes uncertainty and a range of values in the market, and there is no equilibrium price under the perfect market theory. Many variables that affect the market cause the valuer paid attention to subjectivity in the choice of the definition of value. It is because different objectives have different definitions of value. Sanders (2018) further explains that opinions about market value should be limited by understanding market value as an expected value or an estimated expected value to reduce uncertainty and produce a fairer value.

Tax avoidance is one of the tax planning carried out by companies to minimize the burden of paying taxes legally (Hantoyo et al., 2016). Tax Avoidance is also tax-related engineering that remains within the tax provisions framework (Puspita & Febrianti, 2018). Tax avoidance is carried out by taking advantage of loopholes in tax regulations to significantly reduce the company's tax burden (Panjalusman et al., 2018). According to the traditional view, tax avoidance is considered an action that can increase the company's value because the tax saved is reinvested or returned to shareholders (Sari et al., 2017).

Tax avoidance by companies is related to the character of the executive, the characteristics of the company, and the rules of the corporate governance structure (Dewi & Jati, 2014). The executive character describes the character of company leaders as policymakers and decision-makers in the company. The larger the company's size, the more complex the transactions are, so the company uses this to avoid tax (Dewi & Jati, 2014). In carrying out tax avoidance, effective internal control is needed to mitigate management errors in making valuations and estimating the company's tax policies so as not to violate the applicable tax rules (Bimo et al., 2019).

One of the tax avoidance practices often carried out is through particular relationship transactions. Companies can obtain financial support through notable relationship transactions with lower capital funding (Ellyani & Hudayati, 2019). The greater the tax avoidance by a company, the more related transactions it does (Sari et al., 2017). Several components will be used to generate value using the market approach (Market Based Approach) and the income approach (Income Approach). The following is a description of these components: Elucidation of Article 18 paragraph (4) of the Income Tax Law states that a special relationship between a taxpayer and another party can occur due to dependence or attachment. The cause of this


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

attachment is due to ownership or equity participation or control through management or use of technology.

Dependence or attachment that gives rise to a special relationship can occur directly or indirectly due to business, employment, or ownership or control. Dependence or ties between parties as a result of business can occur if there are transactions of buying, selling, or giving rewards in any standard form. Dependence or attachment between parties due to work can occur if there is a provision of services, implementation of activities, or other work. Dependence or ties between parties due to ownership or control can occur if there is direct or indirect management control or the use of technology. There are one or more companies under the same control or several companies under the same entrepreneur's control or a blood relationship or marriage for individual taxpayers.

Notable relationship transactions are not prohibited, but a special relationship between one another allows the manipulation of transaction prices outside the fair price (Setiawan, 2019). Therefore, the tax law regulates unique relationships to prevent tax evasion due to special relationships. A special relationship allows the expense to be charged more than it should be or the reported income is less than it should be. A transaction affected by a related relationship must be equal to or within a comparable price range to a similar transaction that is not affected by a related relationship. Transactions related to parties must still pay attention to the principles of fairness and business practice.

Riyanto (2020) describes the factors that influence the determination of property rental values for the placement of automated teller machines using quantitative methods by analyzing four main variables, namely the rental period, the distance of the property to the shopping center, population, and density. This study aims to identify the factors that affect the property's rental value for the placement of Automated Teller Machines. The results show that the rental period has a positive effect on the property's rental value, the distance of the property to the shopping center has a negative effect, the number of residents has a negative effect, and population density does not affect the rental value of the property.

Ma et al. (2018) analyzed shared warehouses in the Beijing area using quantitative research methods to determine warehouse rental prices on the open market. The data collected is processed using machine learning techniques and concludes that distance from the city center has the most critical role in determining warehouse prices in Beijing, followed by the nearest property price and warehouse size. Adhiani and Haryanto (2016) analyzed the rental price of buildings in the Jalan Raya Kalimalang Jakarta corridor and the factors that influence it. They used quantitative methods and concluded that the development of commercial activity in the Kalimalang Highway corridor is influenced by location, accessibility, infrastructure, and regional suitability factors. The rental price for the building in Jalan Raya Kalimalang starts from Rp. 20,000,000 - Rp. 100,000,000 per year.

Rianto and Jaya (2000) analyzed the land and buildings used by PT. KA (Persero) DAOP VI DI Yogyakarta in the form of land around the railway line, land and buildings for operational support and official residences, and land and buildings used by third parties. This study estimates the value of the rent of the Yogyakarta Special Region Government because of the location of assets in the form of land and buildings belonging to PT. KA (Persero) DAOP VI is the property of the Yogyakarta Special Region Government. This research uses quantitative methods, namely land appraisal with a comparative approach and property appraisal with a cost approach and an income approach. Their research concluded the estimated fair market value and annual rental value of land and buildings used by PT. KA (Persero) Daop VI is worth Rp11,434,035,241.

Kohlbeck & Mayhew (2010) examines stock market valuations that reveal differences between transactions conducted by independent parties and transactions between related parties. The study used a sample of 1,194 companies. The analysis results show that


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

transactions between related parties use lower valuations than those between independent parties. In addition, studies indicate lower rates of return for related companies. A study by Irawan & Safitri (2021) discusses the use of the valuation method for rental transactions for machinery and equipment by related parties. The approach taken is the income approach. There is a difference in the calculation of the rental price valuation between the Taxpayer and the tax service office. This study also shows that the valuation method has a significant role in increasing tax revenue.

## Method

This study used a qualitative approach with a case study method to gain a general understanding of social reality from the participant's perspective (Rahmat, 2009). Data collection uses documentation study techniques by collecting several documents in books, journals, news, articles, reports, and relevant laws and regulations. The research object is the 2019 Valuation Report on warehouse leasing transactions carried out by taxpayers with unique relationships (related parties) at KPP Pratama Padang Dua. Resource persons are asked to submit ideas and arguments for the valuation report that has been prepared. Next, the researcher analyzes and compares whether the valuation procedure is under the applicable provisions. In addition, the researcher also analyzes the obstacles encountered by the Tax Assessor when conducting the valuation.

## Results

The technical guidance for valuation within the DGT is carried out based on the Circular Letter of the Director General of Taxes Number SE-54/PJ/2016 concerning Technical Guidelines for Property Valuation, Business Valuation, and Valuation of Intangible Assets for Taxation Purposes (starting now referred to as SE-54/PJ/2016). However, in general, the flow of the valuation process that applies at DGT is the same as the valuation standards in KEPI and SPI Edition VII-2018, which apply to appraisers in Indonesia in general.

The Tax Assessor's trigger to assess the Taxpayer's transactions reviewed in this study is due to a request for assistance from the Tax Assessor as an expert in the audit. The trigger for this valuation stems from the Tax Auditor who found a unique relationship transaction related to warehouse rental carried out by the Taxpayer. The attachment causes the extraordinary relationship because one of the Taxpayer's shareholders is a manager in the company that owns the warehousing complex. The rental transaction is carried out based on an agreement between the Taxpayer and the transaction opponent as outlined in the lease agreement. In the agreement, the Taxpayer acts as the tenant of the warehousing complex, and the counterparty acts as the lessor of the warehousing complex with a rental period of one year starting from March 01, 2016, until February 28, 2017. In addition, facilities that can be enjoyed and borne together with The rent for the warehousing complex are electricity, telephone, water, and land and building taxes. The agreement also states that the warehousing complex may only be used for office and warehouse purposes and that taxpayers must insure the leased building. The rental price stated in the lease agreement is Rp800,000,000 for one year, excluding value-added tax.

Based on the prevailing laws and regulations, the amount of income from related transactions can be recalculated under the fairness and normality of business which is not affected by unique relationships. Based on this regulation, the Tax Auditor requests the assistance of the Tax Appraiser as an official who has the task of conducting a valuation within the DGT to recalculate the market value of the warehouse rental transaction. The first thing to do in the valuation process is to identify the problem. SE-54/PJ/2016 stipulates that problem identification consists of determining the purpose of the valuation, determining the basis of value, identifying the object of the valuation, determining the valuation date, and determining


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

the assumptions and limiting conditions.

In the reviewed valuation report, the authors found that problem identification was carried out following the instructions in SE-54/PJ/2016. The Tax Appraiser has a valuation objective under the Tax Auditor's request, which is to determine the market value of the 2017 warehousing complex rental transaction belonging to the Taxpayer. The basis of value used in the valuation is market value, with the object of the valuation being the transaction value of the rental or warehousing complex. By using five assumptions, the valuation date is January 01, 2017. First, the valuation is carried out based on data and information obtained from the Taxpayer so that the Taxpayer's incorrect data and information are not the Appraiser's responsibility. Second, the management competence in providing the information is the responsibility of the Taxpayer. Third, the data and information obtained from various sources are deemed appropriate after the Appraiser conducts an objective analysis. Fourth, the Appraiser is not responsible for matters hidden by the Taxpayer regarding the object of the valuation that may affect the value indication. Fifth, the valuation is carried out by considering all the limits, laws, and regulations that apply to the object of the valuation.

Furthermore, the Tax Appraiser also describes the terms and conditions that limit, namely (1) the conclusion of the value contained in the report only applies to the object of valuation listed in the report and may not be used outside the purposes stated in the report; (2) the object of the valuation is the company's business entity used for the company's operational activities; (3) the valuation report is confidential and cannot be disseminated in general without the permission of the DGT; (4) The Tax Appraiser may be asked for his opinion regarding the determination of the market value of the object of valuation in the report; (5) the valuation report is based on the conditions at which the valuation was conducted based on data and information obtained from the Taxpayer, taxation database, as well as the experience and observations of the Tax Assessor; (6) the duties, responsibilities, and authorities of the Tax Appraiser in the preparation of the report are only limited to assessing the object of the valuation to determine the market value of the warehousing complex rental; and (7) the valuation report that is prepared is to express an opinion. Moreover, the Tax Assessor also outlines a glossary of terms to facilitate the Tax Auditor in understanding the contents of the appraisal report.

Based on SE-54/PJ/2016, data collection is carried out after the problem is identified. The data collected includes macroeconomic data, industrial sector data, valuation object data, and economic income projections. In the valuation report that the author reviewed, the Tax Assessor collects data according to the instructions in SE-54/PJ/2016 and describes the data sources used. Primary data sources were obtained through direct observation of the valuation site and limited interviews with company management as outlined in the appraiser data form. Secondary data sources include the 2017 taxpayer financial statements attached to the 2017 Income Tax Annual Income Tax Return, the 2017 Public Works Sector Price List for the first quarter edition of the Padang City Government Public Works and Spatial Planning Office, data and information taxpayers in the Information System of the Directorate General of Taxes, publications of Bank Indonesia in the form of macroeconomic data, the Bloomberg website related to data on risk-free interest rates and risk premiums, and the Damodaran website related to data on debt and equity ratios and systematic risk.

The Tax Appraiser explained that the object of the valuation was in the work area of KPP Pratama Padang Dua, which was located at Jalan Raya By Pass number 20, Pemambiran Ampalu Nan XX, Lubuk Begalung, Padang city. In addition, the Tax Assessor also outlines the Taxpayer's identification number, business field code, registration date, and Taxpayer legal status. This general explanation contains a brief explanation regarding the size and form of utilization of the object of valuation and activities carried out by the Taxpayer regarding the object of valuation, business plans and strategies, and financial statements. The Tax Appraiser


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

explained that the object of the valuation was a warehousing complex rented by the Taxpayer for operational activities and as a warehouse. This warehousing complex is devoted to household products, clothing care products, personal care products, and food and beverage products. This warehousing complex consists of land measuring 19,233 m2, an office building measuring 402 m2, built in 2010 with the main construction being brick, and a warehouse building measuring 6,404 m2 built in 2010 and underwent renovation in 2017 with the main construction being steel.

In macroeconomic analysis, the Tax Assessor stated that the city of Padang experienced economic growth obtained from the sum of the values formed by each economic category which ultimately formed the Gross Regional Domestic Product (GRDP) of the city of Padang. This growth was driven by several economic categories that experienced growth, namely agriculture, mining and quarrying, processing industry, electricity and drinking water, construction, trade, transportation and warehousing, financial and insurance services, provision of accommodation and food, and drink, and other services. From these several growing economic categories, the category of providing accommodation, food, and drink experienced enormous growth.

The Tax Assessor stated that the city of Padang, the capital of the province of West Sumatra, is a trade center. This statement is based on the 2017 Padang city GDP calculation based on current prices, which shows that the wholesale and retail trade category in 2017 has an immense contribution to the GRDP, followed by the transportation and warehousing category. It shows that the two economic categories are important sectors in the economy of the city of Padang. Another thing that the Tax Appraiser pays attention to when analyzing the industrial sector is that the number of businesses and workers in the transportation and warehousing categories is still tiny but can make a significant contribution to the economy of the city of Padang. This phenomenon shows that the potential for the sector's development is enormous and needs to be continued.

The approach used in the valuation report is the market data approach, the cost approach used to determine the market value of the land and buildings of the warehouse complex, and the revenue approach to estimate the income from the rental of the warehouse complex. The income approach is carried out by projecting discounted income at a specific discount rate to obtain the market value of the object of valuation. SE-54/PJ/2016 describes that the method used in the income approach is the discounted cash flow method or the income capitalization method. The technique in both methods is to use net income after tax or use net income before interest and taxes. However, SE-54/PJ/2016 states that Tax Assessors can use different projection techniques from those used in the technical guidelines as long as adequate references support the techniques used. The method used by the Tax Appraiser in this valuation is the total cost of capital method, which is capital that takes into account the entire cost of capital used by the Taxpayer. Tax Appraisers believe that this method helps determine which investment projects should be taken by comparing the number of capital costs that must be incurred with the level of profits obtained in the future.

The appraisal process begins with determining the market value of the land and the market value of the buildings rented by the Taxpayer. The market value of the land object of the valuation is obtained by comparing similar objects sold in the general market with bond-free transactions. The value of the land obtained from the results of the analysis carried out is Rp. 20,887,038,000.

Furthermore, the Tax Appraiser determines the market value of the building by calculating the total cost incurred to acquire the building in a new condition under the appraisal date. All these costs are then deducted by the depreciation incurred on the building under the results of direct observations made by the Tax Appraiser. Aspects of building depreciation taken into account are physical depreciation, functional depreciation, and economic depreciation.


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

Table 1. The calculation result of the overall building value

| No | Description | Size ($m^2$) | Value/$m^2$ | Market Value |
|---|---|---|---|---|
| 1 | Office Building | 402 | 2.297.363 | 923.539.959 |
| 2 | Warehouse Building | 6.404 | 2.926.868 | 18.743.662.867 |
| | Total | | | 19.667.202.626 |

Source: KPP Pratama Padang Dua Valuation Report

After knowing the market value for all issued capital, the Tax Appraiser determines the discount rate using the weighted average cost of a capital method with the calculation process referring to SE-54/PJ/2016. This method was chosen because the Tax Appraiser assumes that the weighted average cost of capital can be used to estimate the minimum expected return on investment, namely the rental of land and buildings in the form of warehousing complexes. The weighted average cost of capital begins with calculating the weight of the Taxpayer's equity and debt using debt and equity ratio data for the real estate industry (operations & services) as of January 5, 2017, from the Damodaran website.

Furthermore, the Tax Appraiser determines the debt market interest rate using data from Bank Indonesia in the form of loan interest granted for investment loans at joint venture banks in 2017 of 9.12%. The applicable tax rate is the tax rate for corporate taxpayers of, 25%. The last data needed to be able to determine the weighted average cost of capital is the level of cost of equity. This fee rate is calculated using the interest rate technique or the fair interest rate on equity. Calculating it is by adding up the risk-free interest rate by multiplying the systematic risk with the risk premium taken from the Bloomberg website for January 1, 2017. The risk-free interest rate and risk premium are chosen for similar types of industry, namely the warehousing complex in the Jababeka industrial area and Mega Manunggal Property at 7.97% and 2.082%, respectively. The systematic risk level chosen for the real estate industry (operations & services) was 88%. After all, components are collected, the Tax Assessor calculates the weighted average cost of capital with the formula WACC = (CoE x We) + (CoD x (1-tax) x Wd). The weighted average cost of capital obtained was 8.22%.

Table 2. The calculation result of the Market Value Lease

| Weighted Average Cost of Capital | Land and Building value | Minimum lease value |
|---|---|---|
| 8,22% | 40.554.240.826 | 3.334.870.000 |

Source: KPP Pratama Padang Dua Valuation Report

The result between the weighted average cost of capital and the overall capital, i.e., market value plus the market value of the building, yields a minimum rental value of IDR 3,334,870,000. The Tax Appraiser assumes that the minimum rental value reflects the rental market value of the warehousing complex.

## Discussion

To determine the lease value of the warehouse, it can be done by obtaining the lease value of the warehouse located in the nearest location. This method is a simple and relatively easy way to do it. In practice, the Tax Assessor at KPP Pratama Padang Dua uses a valuation method that uses several techniques and procedures that are more systematic and accountable. The valuation method is one method that can be used to evaluate transactions carried out by related parties.

Functional Appraisers within the Directorate General of Taxes must follow


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

established guidelines or technical instructions. It aims to provide convenience and uniformity for Appraisers conducting property, business, and intangible asset appraisals for tax purposes. On the other hand, Functional Appraisers can also use other literature that supports the implementation of the valuation. It can be done as long as the literature in question does not conflict with the technical instructions issued by the Directorate General of Taxes.

Following the technical instructions set by the work, the unit is a common practice for all employees. The head of the work unit will formally approve the work result report if the procedure has been carried out following applicable regulations. When carrying out the research, the authors noticed that technically the Appraiser Functional had carried out all procedures following SE-54/PJ/2016. The procedures followed include: (a) assumptions and limiting conditions; (b) data collection and analysis; (c) valuation approach and valuation process; and (4) value reconciliation and value conclusions. However, in practice, the Appraiser Functional encounters various obstacles that can affect the appraisal results.

Some of the obstacles encountered by the Tax Assessor are as follows. First, taxpayers do not submit business plans and strategies that can be used to analyze conditions and project taxpayer income. This document is essential for the Tax Assessor as one of the components used in conducting a valuation using the income approach. In conducting business cycle analysis, the Tax Assessor only relies on limited interviews with management. Tax Appraisers cannot perform the life cycle of business analysis, Porter Five Forces analysis, and SWOT analysis. The Tax Assessor does not have the authority to force the taxpayer to submit the said document even though the valuation mechanism is based on the tax auditor's audit procedure.

Second, the Tax Appraiser does not obtain a financial report belonging to the taxpayer's counterparty as the warehousing complex leasing provider. This financial report helps obtain consistent information between the lessee (taxpayer) and the lessor (warehousing owner). The lessor's financial statements can provide information on lease transactions made to any party, both independent parties and related parties. In addition, financial statements can also provide information on the increase or decrease in rental prices over the last few years. It is essential to strengthen the argument whether the rental value has met the fairness principle or not.

Third, the unavailability of market data related to warehouse rental transactions around the object of valuation makes it difficult for the Tax Appraiser to determine the transaction's market value. The existence of market data related to warehouse rental values is vital as comparative data (comparables) for the lease transactions being analyzed. The absence of this data causes the Tax Assessor to look for other approaches to obtain the fair value of the lease transactions between related parties.

Lastly, the lack of training and experience of Tax Appraisers in conducting business appraisals causes Tax Appraisers to find it challenging to collect data and analyze the object of valuation. The author obtained this information when conducting interviews with the Tax Assessor. At the time of assessing in 2019, the Tax Assessor only relied on the guidelines listed in SE-54/PJ/2016. Tax Appraisers themselves have never received adequate training related to business appraisal. It causes the Tax Appraiser's skills to be not optimal when encountering obstacles, as described in the previous paragraphs.


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

## Conclusion

The authors conclude several conclusions based on the KPP Pratama Padang Dua valuation report related to the value of warehouse rental transactions between related parties. First, the valuation procedure carried out by the Tax Assessor at KPP Pratama Padang Dua follows SE-54/PJ/2016 as a guide in conducting the valuation. It was done because there was a request for assistance from the Tax Auditor to re-determine the market value of the rental complex of the warehousing complex. After all, there was a special relationship between the transacting parties in the transaction. The procedure starts by identifying the problem, collecting data, analyzing the data collected, selecting a valuation based on the available data, conducting the valuation process, and finally making a score. The problem faced by the Tax Assessor during the process is the second data collection and the lack and competence of the KPP Pratama Padang Dua Tax Assessor in business.

In addition, the author also has several suggestions regarding the report. Among others, the first is a valuation carried out using the income approach based on the financial statements belonging to the transaction as the owner of the warehousing complex so that income is more accurate following the conditions of the company. Second, the Appraiser can ask for assistance from a more experienced tax appraiser to get more accurate results. Second, data analysis should be carried out using the help of analytical tools to facilitate the Tax Appraiser, such as determining the conditions in conducting the appraisal in the industry, the business strategy of the appraisal object, or the number of costs incurred for the investment made by the appraisal object. An example of the analytical tool the author is referring to is the analysis of Porter's five forces (Porter's five forces analysis) which can be used to determine the condition of the industry and the business strategy of the object being evaluated.

## Reference


Adhiani, A. L., & Haryanto, R. (2016). Kajian harga sewa bangunan komersial di koridor Jalan Raya Kalimalang, Jakarta. *Jurnal Pengembangan Kota*, *4*(2), 186–196. https://doi.org/10.14710/jpk.4.2.286-196

Apriyanti, H. W., Permatasari, D., & Fuad, K. (2020). Faktor-Faktor yang Mempengaruhi Pengungkapan Kebijakan Metode Transfer Pricing dalam Laporan Keuangan. *Jurnal Akuntansi Indonesia*, *9*(1), 19. https://doi.org/10.30659/jai.9.1.19-36

Bimo, I. D., Prasetyo, C. Y., & Susilandari, C. A. (2019). The effect of internal control on tax avoidance: the case of Indonesia. *Journal of Economics and Development*, *21*(2), 131–143. https://doi.org/10.1108/JED-10-2019-0042

Challoumis, C. (2019). Transfer Pricing Methods for Services and the Policy of Fixed Length Principle. *Economics and Business*, *33*(1), 222–232. https://doi.org/10.2478/eb-2019-0016

Damodaran, A. (2006). Valuation approaches and metrics: A survey of the theory and evidence. *Foundations and Trends in Finance*, *1*(8), 693–784. https://doi.org/10.1561/0500000013

Dewi, N. N. K., & Jati, I. K. (2014). Pengaruh karakter eksekutif, karakteristik perusahaan, dan dimensi tata kelola perusahaan yang baik pada tax avoidance di Bursa Efek Indonesia. *E-Jurnal Akuntasi Universitas Udayana*, *2*(6), 249–260.

Djaja, I. (2017). *All About Corporate Valuation* (Y. Masda (ed.); Edisi Revi). PT Elex Media Komputindo.

Ellyani, M., & Hudayati, A. (2019). The Role of Related Party Transaction and Earning Management in Reducing Tax Aggressiveness. *Riset Akuntansi Dan Keuangan Indonesia*, *4*(3), 134–145. https://doi.org/10.23917/reaksi.v4i3.8979

French, N., & Gabrielli, L. (2004). The uncertainty of valuation. *Journal of Property Investment & Finance*, *22*(6), 484–500. https://doi.org/10.1108/14635780410569470

Gjorgieva-trajkovska, O. (n.d.). *Transfer pricing-definition and methods*. *35*, 167–173.

Gleißner, W., & Ernst, D. (2019). Company valuation as a result of risk analysis: replication




ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

approach as an alternative to the CAPM. *Business Valuation OIV Journal*, *1*(1), 3–18.
Hantoyo, S. S., Kertahadi, & Handayani, S. R. (2016). Pengaruh penghindaran pajak dan sanksi perpajakan terhadap kepatuhan wajib pajak (studi pada wajib pajak di Kantor Pelayanan Pajak Pratama Tegal). *Jurnal Perpajakan (JEJAK)*, *9*(1), 1–7.
Institute, A. (2007). *Appraising residential properties fourth edition* (Fourth Edi). Appraisal Institute.
Institute, A. (2014). *The student handbook to the appraisal of real estate*. Appraisal Institute.
Irawan, F., Khusna, W., & Safitri, F. (2021). Kajian Proses Penilaian Kewajaran atas Transaksi Sewa Pihak Berelasi. *Owner: Riset & Jurnal Akuntansi*, *5*(2), 279–288. https://doi.org/10.33395/owner.v5i2.491
Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X
Kamdar, M. (2019). Acceptable methods for determining an arms' length price for transfer pricing. *International Tax*, *33*, 18–27.
Kirk, W. C., & Wishing, K. J. (2018). Fundamentals of the asset-based business valuation approach. *Insights*, *Winter*(3), 3–14.
Kohlbeck, M., & Mayhew, B. W. (2010). Valuation of firms that disclose related party transactions. *Journal of Accounting and Public Policy*, *29*(2), 115–137. https://doi.org/10.1016/j.jaccpubpol.2009.10.006
Köseoğlu, S. D., & Almeany, S. S. A. (2019). Introduction to Business Valuation. In *Business Valuation* (Issue January, pp. 1–23). https://doi.org/10.4018/978-1-7998-1086-5.ch001
Kucharska-Stasiak, E., & Žróbek, S. (2015). An attempt to exemplify the economic principles in real property valuation. *Real Estate Management and Valuation*, *23*(3), 5–13. https://doi.org/10.1515/remav-2015-0020
Kummerow, M. (2002). A statistical definition of value. *Appraisal Journal*, *70*(4), 1–30.
Kummerow, M. (2003). Theory for real estate valuation : an alternative way to teach real estate price estimation methods. *… Land Economy and Valuation, Curtin University, Perth*, 1–29.
Lamria, M. (2012). Analisis ketentuan tentang penerapan prinsip kewajaran atas transaksi penjualan barang antar wajib pajak yang mempunyai hubungan istimewa di Indonesia. In *Academia*. Universitas Indonesia.
Lim, H., & Park, M. (2019). Modeling the spatial dimensions of warehouse rent determinants: a case study of Seoul Metropolitan Area, South Korea. *Sustainability*, *12*(1), 259. https://doi.org/10.3390/su12010259
Ma, Y., Zhang, Z., Ihler, A., & Pan, B. (2018). Estimating warehouse rental price using machine learning techniques. *International Journal of Computers Communications & Control*, *13*(2), 235–250. https://doi.org/10.15837/ijccc.2018.2.3034
Maliene, V. (2011). Specialized property valuation: Multiple criteria decision analysis. *Journal of Retail & Leisure Property*, *9*(5), 443–450. https://doi.org/10.1057/rlp.2011.7
Matavulj, L. (2021). Calculation of transfer prices: Theoretical and practical implications on the result. *Ekonomika*, *67*(1), 57–75. https://doi.org/10.5937/ekonomika2101059m
McNair, D., Dottey, R., & Cobham, A. (2010). Transfer Pricing, and the Taxing Rights of Developing Countries. *Tax Justice Network Africa Research Conference*, 1–16.
Mills, T. (2019). Fully armed: Is the application of the arm's length principle the best method to address transfer mispricing in the mining industry in developing countries? *Extractive Industries and Society*, *6*(4), 1075–1078. https://doi.org/10.1016/j.exis.2019.07.011
Panjalusman, P. A., Nugraha, E., & Setiawan, A. (2018). Pengaruh Transfer Pricing Terhadap Penghindaran Pajak. *Jurnal Pendidikan Akuntansi & Keuangan*, *6*(2), 105. https://doi.org/10.17509/jpak.v6i2.15916


ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15

Paschall, M. A. (2001). Kick the habit: the excess earnings method must go! *Business Valuation Review*, *21*(3), 3–7. https://doi.org/10.5791/0882-2875-20.3.3

Prasetyo, K. A. (2018). Penentuan unsur ketidakpastian dalam penghitungan estimasi nilai pasar properti dengan menggunakan pendekatan pendapatan: catatan praktisi. *Simposium Nasional Keuangan Negara*, 58–78.

Puspita, D., & Febrianti, M. (2018). Faktor-faktor yang memengaruhi penghindaran pajak pada perusahaan manufaktur di bursa efek Indonesia. *Jurnal Bisnis Dan Akuntansi*, *19*(1), 38–46. https://doi.org/10.34208/jba.v19i1.63

Rahmat, P. S. (2009). Penelitian kualitatif. *Equilibrium : Jurnal Penelitian Pendidikan Dan Ekonomi*, *5*(9), 1–8.

Rianto, R. E., & Jaya, W. K. (2000). Pendekatan penilaian properti untuk estimasi nilai sewa tanah dan bangunan PT. Ka (persero) daop vi guna peningkatan pendapatan asli daerah (PAD) pemerintah Daerah Istimewa Yogyakarta. *Jurnal Ekonomi Dan Bisnis Indonesia (UGM)*, *15 (3)*(3), 332–338.

Riyanto, E. (2020). Faktor-faktor yang mempengaruhi penentuan nilai sewa properti untuk penempatan mesin Anjungan Tunai Mandiri (ATM). *Jurnal Pajak Dan Keuangan Negara*, *2*(1), 9–18.

Rosad, D. A., Nugraha, E., & Fajri, R. (2020). Faktor-faktor yang mempengaruhi keputusan perusahaan untuk melakukan transfer pricing. *Jurnal Akuntansi Netral, Akuntabel, Objektif*, *2*(2), 293–305.

Sanders, M. V. (2018). Market value: what does it really mean? *The Appraisal Journal*, *369*(Summer), 206–218.

Sari, D. K., Utama, S., & Rossieta, H. (2017). Tax avoidance, related party transactions, corporate governance, and the corporate cash dividend policy. *Journal of Indonesian Economy and Business*, *32*(3), 190–208. https://doi.org/10.22146/jieb.28658

Setiawan, A. N. dan I. (2019). Pengaruh good corporate governance dan transaksi hubungan istimewa terhadap effective tax rate (studi empiris pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia tahun 2013-2017). *Jurnal Renaissance*, *4*(02), 583–598.

Sikka, P., & Willmott, H. (2010). The dark side of transfer pricing: Its role in tax avoidance and wealth retentiveness. *Critical Perspectives on Accounting*, *21*(4), 342–356. https://doi.org/10.1016/j.cpa.2010.02.004

Smith, E. P. (2012). The basics of business valuation, fraud and forensic accounting, and dispute resolution services. *CPA Journal*, *82*(6), 6–11.

Torrez, J. G., Al-Jafari, M., & Juma'h, A. (2006). Corporate valuation: a literature review. *Inter Metro Business Journal*, *2*(2), 39–58. https://doi.org/10.2139/ssrn.3165643

Valente, P. (2012). Audits and Valuations in Transfer Pricing Matter Italian Tax Authorities' Powers and Taxpayer's Rights. *Rivista Di Diritto Tributario Internazionale : International Tax Law Review*, *2*, 257–280.

Valente, P., & Caraccioli, I. (2017). Transfer Pricing Audits: Suitability of Transfer Pricing Documentation. *Intertax*, *45*(6), 501–506.

Wulan, D. A., & Setyawati, A. (2018). Strategi pemasaran perusahaan logistik. *Jurnal Manajemen Transportasi & Logistik*, *05*(02), 95–104.

Wyatt, P. (2007). Property valuation. In *Blackwell Publishing*. Elsevier.

Yusuf, H., Hambali, T., & Jatmika, P. A. (2018). *Kode Etik Penilai Indonesia dan Standar Penilaian Indonesia Edisi VII - 2018*.

Zulaicha, S., & Irawati, R. (2016). Pengaruh produk dan harga terhadap keputusan pembelian konsumen di Morning Bakery Batam. *Jurnal Inovasi Dan Bisnis*, *4*(2), 125–136.



ISSN : 2614-3291 (online)
doi: http://dx.doi.org/10.32493/keberlanjutan.v7i1.y2022.p1-15