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The Influence of Liquidity, Growth Opportunities, and Firm Size on Non-Finance Companies' Hedging Policy in Indonesia Stock Exchange

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ABSTRACT: Hedging is a policy done by a corporation in order to manage the possible risk caused by the exchange rate fluctuation. The purpose of this study is to determine the significance of the influence of liquidity, growth opportunities, and firm size on hedging policies. The study was conducted on non-financial companies in Indonesia Stock Exchange in the period of 2018. The study used purposive sampling technique with the number of samples of 449 companies. Data collections were conducted by non-participant observation method namely through financial report data published on the website www.idx.co.id. The analysis technique used in this study is logistic regression analysis. The results of hypothesis testing show that the liquidity which proxied by current ratio and the growth opportunities proxied by market to book value equity has negative, insignificant influence on hedging decision. Firm size has significance and positive influence on hedging decisions.
KEYWORDS: *firm size, growth opportunities, hedging decision, liquidity*

I. INTRODUCTION

Globalization and technology development has become huge influences in various aspect of people's life. Economic sector is one of the biggest sector influenced by the development of technology and globalization. Using the benefit provided by this development, firms and corporation are able to expand their business to foreign markets world-wide(Wild et al., 2013). Firms which have reached their optimum growthin their home country will likely to find bigger opportunities in foreign market, in addition the emerging growth of foreign market would motivate firms to expand their businesses through foreign trade and investment (Ball et al., 2014). However, these opportunities of foreign trade and investment come with risks and threats to the company. Foreign exchange rate fluctuation, foreign economic conditions, and political risks are the risk that international firms have to bear and exposed to when they choose to execute international trade and investment (Madura, 2015).

Firmswhose exposed by the fluctuation of foreign rate exchange can use hedging as one of their risk-management tools. Common hedging methods used by corporations are mostly derivatives techniques such as forward contract, future contract, swap, and options (Madura, 2015). Derivative is a contract between two or more parties to trade commodity and or currencies where the price takes place in specified date in the future at a price agreed today (Dewi and Purnawati, 2016). The value of derivative contracts changes overtime based on the performance of the underlying assets. Therefore, meanwhile hedging through derivative contracts could minimize the foreign exchangerate fluctuation risk, it also could create loss to the corporations if it is done in inappropriate setting. Hence, corporations have to be prudent when it comes to use derivatives contracts as hedging method (Prabawati and Damayanti, 2019).

Factors influencing the firms' decisions on derivative usage as hedging method also based on firms' internal condition such as liquidity, growth opportunities, and firm size. Liquidity refers to a company's ability to settle its short-term liabilities. Firms' liquidity are measured by the degree to use its current assets to meets its current or short-term liabilities. The higher the ability of the company to settle its liabilities means higher liquidity, which higher liquidity means the lower firms' risk in encounter financial liabilities problems (Sartono, 2014). Study conducted by Yong (2014), Lantara (2012), and Windari (2018) showed negative influence on the usage of hedging through derivative contracts , which implies that the higher the firms' liquidity the lower the possibility of them using hedging through derivative contracts. However, conflicting results stating liquidity has positive influence on firms' hedging policy shown in the study carried out by Chaudry (2014) and Raghavendra and Velmuguran (2014).

Firms' growth opportunities can also influence its decision on using derivative contracts as hedging policy. Firms which has high growth opportunities shows that the company has high possibility of exercising more investment opportunity. These investment opportunities would demand high flow of funding in order for those firms to be able to exercise the opportunities (Guniarti, 2014). Firms can acquire to fund these investment through external funding such as foreign debt and loans, however these could lead to foreign exchange rate fluctuation risk in the settlement process. Further, this condition could highly damage the firms' financial statement. Therefore, firms with high growth opportunities would tend to use derivative contracts to hedge themselves from foreign exchange rate fluctuation risk. This statement is supported by the result of the researches conducted by Ahmad (2012), and Afza and Atia (2011) which stating that growth opportunities has positive influence on hedging decision through derivative contracts usage.Conflicting result, however, shown in the research conducted by Vural-Yavas (2016) and Velasco (2014) which showing the negative influence on growth opportunities and hedging policy through derivative usage.

Firm size is another variable that can influence the firms' decision on whether to use derivatives contract to hedge their foreign exchange rate fluctuation risk. As company growing bigger in size, its financial activities would increase. The company activities would increase as company extend their trade and investment in widerrange, such as, international trade and investment which would also increase the risks and threats faced by the company (Guniarti, 2014). Hence, company would likely to use hedging through derivative contracts to hedge and manage the risks emerge by such activities. The research carried out by Albouy (2017) and Raghavendra and Velmuguran (2014) indicate the positive influence by firm size on the firms' decision on using derivative contracts for hedging policy. This statement also supported by the research of Rashid (2010) and Geyer-Klingeberg et al (2018). In the other hands, negative influence is shown in the research conducted by Shiu (2011) and Afza and Atia (2011).

The different findings in previous studies provide a gap for this study to re-examine the relationship between firm's liquidity, growth opportunities, and size to derivative contracts usage as firms' hedging policy. This study is conducted on non-financial companies seeing that these companies tend to use derivative contracts in purpose of hedging their financial risks instead of using derivatives to gain profit from speculation which usually used by the financial companies (Siantari and Pangestuti, 2015).

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Liquidity refers to a company's ability to settle its short-term liabilities. The more liquid a company's assets are, the less likely it is that a company has short-term liability problems (Brigham & Houston, 2010). Companies that have short-term liabilities in the form of foreign exchange will be vulnerable to being affected by the risk of fluctuations in foreign exchange because the value of debt will fluctuate in line with movements in the exchange rate of the local currency against foreign currencies. If the local currency weakens, the value of debt will increase, therefore more local currency would have be issued to pay short-term obligations that can burden the company (Windari, 2019).

Companies with high liquidity are less likely to experience short-term liability problems. Then, the higher the company's liquidity, the lower the probability of the company to implement hedging policies. This statement is reinforced by the results of research conducted by Jerome, et al (2018), Velasco (2014), Lantara (2012), Yong et al (2014), and Iqbal (2015). Based on the description that has been explained, the hypothesis of this study:

H1: Liquidity has a negative influence on hedging policies.

Growth opportunity is a company's ability to take advantage of investment opportunities in order to enhance its development in the future. Companies that have a high growth opportunity will tend to need funds in large enough quantities to finance the growth, therefore the company will maintain profits to be reinvested in the company and at the same time the company is expected to continue to maintain funding through greater debt (Baskin, 1989).

The problem of underinvestment arises when a company does not have sufficient investment funds to finance projects that have a positive net present value. This can lead to underinvestment costs, namely when companies have to incur costs in order to manage the underinvestment problems that arise (Velasco, 2014). Additional investment funds needed by companies with high growth rates can be obtained from external parties such as foreign loans and debt. This causes the company to be exposed to the risk of exchange rate fluctuations in the process of fulfilling its obligations. This can be very detrimental to companies, thus, companies that have a high growth opportunity will tend to use hedging policies to protect themselves from the risk of fluctuations in foreign exchange rates (Guniarti, 2014).

This statement is supported by the results of previous research conducted by Chaudry et al (2014), Vural-Yadas (2016), Shiu et all (2012), Torien and Hugo (2016) who stated the positive and significant influence of the growth and growth opportunities on the company's trends conduct derivatives for hedging policies. Based on the description that has been explained, the hypothesis of this study:

H2: Growth Opportunity has a positive effect on Hedging policy

The size of the company is the level of size of the company as seen from the total value of the assets of the company. The greater the size of a company, the greater the activity that occurs in the company, and the higher the risk borne by the company due to the wider trade undertaken by the company. The size of large companies in general carry out trade and transactions abroad, thus the company has the opportunity to be affected by the risk of fluctuations in foreign exchange rates, thus allowing the company to hedge (Irawan, 2014).

This statement is reinforced from the results of previous studies conducted by Yong et al (2014), Vural-Yavas (2016), Lantara and Takao (2012), Shiu et al (2012), Megawati (2016), and Windari (2019) which stated there is a positive and significant influence of company size on the use of derivatives as hedging policy making. Based on the description that has been explained, the hypothesis of this study:

H3: Company Size has a positive effect on Hedging policies

III. METHODS

This research was conducted on non-financial companies listed in the Indonesia Stock Exchange in the period of 2018 by assessing the financial reports of the companies' and firms' share value and price through Indonesia Stock Exchange official website, www.idx.co.id, and other financial websitewww.yahoofinance.com.The population of this study is all non-financial companies that publish annual financial statements for the 2018 period. The number of non-financial companies registered and publishes annual financial statements in 2018 is 493 companies.Data collection methods used in the form of non-participant observation by looking at, studying the descriptions of books, journals, theses, theses and citing the notes obtained from the Indonesia Stock Exchange (IDX) documents in the form of annual financial statements of non-financial companies and its records in 2018 through the IDX's official website www.idx.co.id.The data analysis technique used to solve the problems contained in this study is the Logistic Regression analysis technique using Statistical Product and Service Solution (SPSS).

IV. RESULT AND DISCUSSION

Partial Test or Test t

Partial test or t test is a test used to determine the effect of each independent variable on partially dependent variables. If each significance coefficient of the independent variable has a value smaller than the significant level of 5 percent (0.05), it can be concluded that the independent variable has a significant effect on the dependent variable.

Table 1.
Variables in the Equation

		B	S.E	Wald	df	Sig.
Step 1	CR	-0,016	0,028	0,330	1	0,566
	MBVE	-0,011	0,021	0,297	1	0,586
	SIZE	0,525	0,074	50,445	1	0,000
	Constant	-15,604	2,152	52,596	1	0,000

Secondary Data, 2019

The Effect of liquidity on hedging policies

Current Ratio (CR) variable, which is a proxy of liquidity, shows a regression coefficient of -0.016 with a variable probability value movement of 0.566 which is greater than the 0.05 (5 percent) significance level. This means that H1 is rejected, which means that the liquidity proxied by CR has a negative and insignificant relationship to hedging policies for non-financial companies listed on the Indonesia Stock Exchange.

The logistic regression test results found that the current ratio as a liquidity proxy has a negative but not statistically significant effect on the dependent variable, namely hedging policy using derivative instruments. These results indicate that hypothesis one which states that liquidity has a negative and significant effect on hedging policy is rejected.

A high level of liquidity can indicate that the company is experiencing a low level of financial difficulty because the company is able to pay its short-term obligations and have a reserve fund to deal with risks so as to avoid the risk of financial distress. Companies that have high ability to pay short-term obligations and have reserve funds to deal with risks so as to avoid the risk of financial distress.

Companies that have short-term liabilities in the form of foreign exchange will be vulnerable to the effects of the risk of fluctuations in foreign exchange because the value of debt will fluctuate in line with movements in the exchange rate of the local currency against foreign currencies. If the local currency weakens, the value of debt will increase, so more local currency must be issued to pay short-term obligations that can burden the company. The more liquid the condition of a company the lower the application of hedging will be because its short-term obligations can be fulfilled, so the risk of default and financial difficulties can be avoided. However, based on the results of research conducted, liquidity was not a factor considered by the company in conducting hedging policies or not.

The results of this study are consistent with the results of research conducted by Sianturi and Pangestuti (2015), Putro and Chabachib (2012), Shaari, et al. (2013), Guniarti (2014) and Raghavendra and Velmurugan (2014) which stated that liquidity had a negative and not significant effect on the use of hedging policies.

The effect of growth opportunities on hedging policies

The company opportunity variable which is proxied by Market to Book Value Equity (MBVE) shows a regression coefficient of -0.011 with a variable probability value movement of 0.586 which is greater than the significance level of 0.05 (5 percent). This means that H2 is rejected, which means that the opportunity of the company which is proxied by MBVE has negative and insignificant relationship to the hedging policies of non-financial companies listed on the Indonesia Stock Exchange.

The logistic regression test results revealed that the growth opportunity which was proxied by Market to Book Value Equity (MBVE) had a negative effect but was not statistically significant on the dependent variable, namely the use of hedging policies. Based on these tests, the second hypothesis which states that growth opportunity has a positive and significant effect on hedging policy is rejected.

Growth opportunity is a company's ability to take advantage of investment opportunities in order to enhance its development in the future. Companies that have a high growth opportunity will tend to need funds in large enough amounts to finance the growth, and will even incur additional costs when the company experiences difficulties in financing its projects (underinvestment costs). Underinvestment costs that have the potential to arise when companies face a high growth opportunity will motivate companies to use hedging policies to deal with emerging risks.

The negative relationship between company growth and the probability of using hedging policies by the company, although the effect is not significant in this study, can occur because the company chooses to use its funds to finance the projects carried therefore reduce funding for risk control using derivative instruments (Yavas, 2016). In addition, the results of this study indicate that the growth opportunity variable is not significant in determining the use of hedging policies.

The results of this study are in accordance with the results of research conducted by Velasco (2014), Sianturi and Pangestuti (2015), Bhagawan M. and Lukose PJ (2017), Nuzul and Lautania (2015) and Danila and Huang (2016) who stated that growth opportunism has no significant effect on hedging policies. But contrary to the results of research by Ahmad (2012), Afza and Atia (2011), and Dewi and Purnawati (2016).

The effect of company size on hedging policies

Company size calculated using ln total assets (SIZE) shows a regression coefficient of 0.525 with a movement of a variable probability value of 0,000 that is smaller than the 0.05 significance level. This means that H3 is accepted which means that company size has a positive and significant relationship to the hedging policy of non-financial companies on the Indonesia Stock Exchange.

The logistic regression test results show that ln total assets which are proxies of company size have a positive and statistically significant effect on the dependent variable, namely hedging policy. The results show that hypothesis three which states that company size has a positive and significant effect on hedging policy is acceptable.

The size of the company that has a positive and significant influence means that the larger the size of the company, the greater the tendency of companies to use hedging policies to protect their assets. Companies that have large size companies have transaction activities, operational, and operational investment of the company in a broader sense not only in the country but also to the international market. Various international transactions such as export, import, purchase of raw materials as well as operations and operational investment such as ownership of factories abroad in order to expand the share and efficiency of production costs will pose risks due to movements in foreign exchange rates that will be borne by the company so that it will increase the use hedging policies to minimize these risks.

The results of this study are consistent with research conducted by Yong et al. (2014), Raghavendra and Velmurugan (2014), Windari (2018), and Megawati (2016) which showed similar results namely that company size had a positive and significant effect on hedging policies.

V. CONCLUSION

Significance and positive relationships are shown by firm size variables calculated by ln total assets. This means that company size is a determinant that determines the use of hedging policies by companies. Companies that have relatively large company sizes should consider using hedging policies with derivative instruments. The greater the size of the company indicates the higher and the extent of the company's international transaction activities such as export and import activities. This will increase the business risk borne by the company due to foreign exchange rate movements and dynamic international market conditions so that in order to minimize the business risks faced, the company can consider the use of hedging with derivative instruments to minimize the risk to be borne by the company.

Based on research that has been done it can be seen that empirically, this research rejects several theories that have existed before. The results of this study are expected to be new evidence with different results from this

hypothesis for international financial management. Data processing is performed using logistic regression with a variety of tests used to estimate the relationship between variables that have been predetermined based on theory. The results of this study are expected to be used to enrich references relating to liquidity, growth opportunities, and company size and hedging policies. The results of this study are expected to be used as input for companies conducting international transactions so that later they can reduce the risk arising from exposure to foreign exchange rate movements.

REFERENCES

[1]. Ahmad, N., & Haris, B. (2012). Factor for Using Derivatives: Evidence from Malaysian Non-Financial Companies. *Research Journal of Finance and Accounting , 3*(9), 79-87.

[2]. Albouy, M., & Dupuy, P. (2017). Selective Hedging of Foreign Exchange Risk: New Evidence from French Non-Financial Firms. *Management International, 21*(4), 76-88.

[3]. Ariani, N. N., & Sudiartha, G. M. (2017). engaruh Leverage, Profitasbilitas, dan Likuiditas terhadap Keputusan Heding Perusahaan Sektor Pertambangan di Bursa Efek Indonesia. *E-Jurnal Universitas Udayana, 6*(1), 347-374.

[4]. Ball, D. A., Geringer, J. M., Minor, M. S., & Mcnett, J. M. (2014). *Bisnis Internasional* (Edisi 12 ed., Vol. I). (I. Akbarwati, & H. Fauziah, Trans.) Jakarta: Salemba Empat.

[5]. Ball, D. A., Geringer, J. M., Minor, M. S., & Mcnett, J. M. (2015). *Bisnis Internasional* (Edisi 12 ed., Vol. II). (I. Akbarwati, Trans.) Jakarta: Salemba Empat.

[6]. Baskin, J. (1989). An Empirical Investigation of the Pecking Order Hypothesis. *Financial Management, 18*(1), 26-35.

[7]. Bhagawan M., P., & Lukose P.J., J. (2017). The Determinants of Currency Derivatives Usage Among Indian Non-Financial Firms. *Studies in Economics and Finance, 34*(3), 363-382.

[8]. Brigham, E. F., & Houston, J. F. (2010). *Dasar-Dasar Manajemen Keuangan* (Edisi Kesebelas ed., Vol. I). (A. A. Yulianto, Trans.) Jakarta: Salemba Empat.

[9]. Brigham, E. F., & Houston, J. F. (2011). *Dasar-Dasar Manajemen Keuangan* (Edisi Kesebelas ed., Vol. II). (A. A. Yulianto, Trans.) Jakarta: Salemba Empat.

[10]. Chaudhry, D. N., Mehmood, M. S., & Mehmood, A. (2014). Determinants of Corporate Hedging Policies and Derivatives Usage in Risk Management Practices of Non-Financial Firm. *Wulfenia Journal Klagemfurt, Austria, 21*(7), 293-310.

[11]. Chiorean, R., Donohoe, M., & Sougiannis, T. (2012). Why do firms use derivatives? Revisiting the Underinvestment Hypothesis . *Working Paper, University of Illinois* .

[12]. Danila, N., & Huang, C.-H. (2016). The Determinants of Exchange Rate Risk Management in Developing Countries: Evidence from Indonesia. *Afro-Asian Journal Finance and Accounting, 6*(1), 53-67.

[13]. Dewi, N. K., & Purnawati, N. K. (2016). Pengaruh Market to Book Value dan Likuiditas Terhadap Keputusan Hedging Pada Perusahaan Manufaktur di BEI. *E-Jurnal Manajemen Unud, 5*, 355-384.

[14]. Dewi, N. K., & Purnawati, N. K. (2016). Pengaruh Market to Book Value dan Likuiditas terhadap Keputusan Hedging pada Perusahaan Manufaktur di BEI. *E-Jurnal Manajemen Unud, 5*(1), 355-384.

[15]. Eiteman, D. K., Stonehill, A. I., & Moffett, M. H. (2010). *Multinational Business Finance* (12th Edition ed.). London, UK: Pearson Education .

[16]. Gaver, J. J., & Gaver, K. M. (1993). Additional Evidence on the Association between the Investment Opportunity Set and Corporate Financing, Dividend, and Compensation Policies. *Journal of Accounting and Economics, 16*(1-3), 25-160.

[17]. Geyer-Klingeberg, J., Hang, M., Rathgeber, A. W., Stockl, S., & Walter, M. (2018). What do we really know about Corporate Hedging? A Meta-Analytical Study. *Bussiness Research, 11*(1), 1-31.

[18]. Griffin, R. W., & Pustay, M. W. (2015). *International Business; A Managerial Perspective* (8th Edition ed.). Essex, London: Pearson Education Limited.

[19]. Guniarti, F. (2014). Faktor – Faktor Yang Mempengaruhi Aktivitas Hedging Dengan Instrumen Derivatif Valuta Asing. *Jurnal Dinamika Manajemen, 5*(1), 64-79.

[20]. Hanafi, M. (2012). *Manajemen Risiko* (Edisi Kedua ed.). Yogjakarta: UPP STIM YKPN.

[21]. Horne, J. C., & Wachowics Jr., J. M. (2012). *Prinsip-Prinsip Manajemen Keuangan* (Edisi Ketigabelas ed.). Jakarta: Salemba Empat.

[22]. Iqbal, S. (2015). Financial DIsstress around Introduction of Hedging in the Oil and Gas Industry. *International Journal of Business, 20*, 80-89.

[23]. Irawan, B. (2014). Analisis Faktor yang Memengaruhi Aktivitas Instrumen Derivatif Valuta Asing Sebagai Pegambilan Keputusan Hedging (Studi Kasus Pada Perusahaan Manufaktur yang Terdaftar di BEI Periode 2009-2012). *Skripsi*.

[24]. Isa, M. A., Ismail, N., & Rahman, N. H. (2017). The Use of Derivatives to Hedge Risk for Plantation and Property Companies in Malaysia. *E-Academia Journal, 6*(1), 38-47.

[25]. John J. Wild, K. L. (2013). *International Business: The Challenge of Globalization* (6th Edition ed.). Pearson.
[26]. Kamau, P., Inaga, E. L., & Rwegasira, K. (2014). Size and Currency Derivatives Usage by Multilateral Banks. *Journal of Advance in Management Research, 11*(3), 257-272.
[27]. Khumawala, S., Ranasinghe, T., & Yan, C. J. (2016). Why Hedge? Extent, Nature, Determinants of Derivative Usage in U.SS Municipalities. *Journal of Accounting and Public Policy, 35*(3), 303-325.
[28]. Koh, A., Ang, S.-K., Brigham, E. F., & Ehrhardt, M. C. (2014). *Financial Management: Theory and Practice, An Asia Edition.* Singapore: Cengage Learning Asia Pte Ltd.
[29]. Lantara, I. W. (2012). The Use of Derivatives as a Risk Management Instrument: Evidence from Indonesian Non-Financial Firm. *International Journal of Business and Economics, 1*(1), 42-65.
[30]. Lantara, I. W., & Takao, A. (2012). The Determinants of the Use of Derivatives in the Japanese Insurance Companies . *Asian-Pasific Journal of Risk and Insurance, 8*(1), 57-81.
[31]. Madura, J. (2015). *International Financial Management* (12th Edition ed.). Stamford, USA: Cengage Learning.
[32]. Megawati, I. A., Wiagustini, L. P., & Artini, L. G. (2016). Determinasi Keputusan Hedging pada Perusahaan Manufaktur di Bursa Efek Indonesia. *E-Jurnal Ekonomi dan Bisnis Udayana, 5*(10), 3391-3418.
[33]. Mishkin, F. S. (2008). *Ekonomi Uang, Perbankan dan Pasar Keuangan* (Edisi 8 ed.). Jakarta: Salemba Empat.
[34]. Nuzul, H., & Lautania, M. F. (2015). Pengaruh Leverage, Financial Distress, dan Growth Options terhadap Aktivitas Hedging pada Perusahaan Non-Keuangan yang Terdaftar di Bursa Efek Indonesia. *Jurnal Dinamika Akuntansi dan Bisnis, 2*(2), 104-113.
[35]. Prabawati, N. P., & Damayanti, C. R. (2019, April). Pengaruh Faktor Debt to Equity Ratio, Market to Book Value, dan Liquidity Terhadap Keputusan Hedging Dengan Menggunakan Instrumen Derivatif . *Jurnal Admistrasi Bisnis, 69*(1), 40-49.
[36]. Putro, S. H., & Chabachib, M. (2012). Analisis Faktor yang Mempengaruhi Penggunaan Instrumen Derivatif sebagai Pengambilan Keputusan Hedging. *Diponegoro Business Review, 1*(1), 1-11.
[37]. Raghvendra, R., & Velmurugan, P. (2014). The Determinants of Currency Hedging in Indian IT Firms. *Journal of Business & Financial Affairs, 3*(3), 1-7.
[38]. Sartono, R. A. (2014). *Manajemen Keuangan: Teori dan Aplikasi.* Yogjakarta : BPFE-Yogjakarta.
[39]. Shaari, N. A., Palanimally, Y. R., & Haji, R. M. (2013). The Determinants of Derivatives Usage: A Study of Malaysian Firms. *Institute of Interdisciplinary Business Research, 5*(2), 300-313.
[40]. Shiu, Y. M. (2011). What Motivates Insurers to Use Derivatives: Evidence from the United Kingdom Life Insurance Industry. *The Geneva Paper, 36*, 186-196.
[41]. Shiu, Y.-M., Wang, C.-F., Adams, A., & Shin, Y.-C. (2012). On the Determinants of Derivative Hedging by Insurance Companies: Evidence From Taiwan. *Asian Economic and Financial Review, 2*(4), 538-552.
[42]. Sianturi, C. N., & Pangestuti, I. R. (2015). Pengaruh Liquidity, Firm Size, Growth Opportunity, Financial Distress, Leverage, dan Managerial Ownership terhadap Aktivitas Hedging dengan Intrumen Derivatif. *Diponegoro Journal of Management, 4*(4), 1-13.
[43]. Simanjuntak, S. A., Munthe, I. L., & Adel, J. F. (2018, Agustus). Pengaruh Debt to Equity Ratio, Likuiditas, Market to Book value, Firm Size, dan Financial Distress terhadap Keputusan Hedging pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia tahun 2013-2016.
[44]. Sonhnke, M. B., & Fehle, F. R. (2009). International Evidence on Derivatives Usage. *Financial Management*, 185-206.
[45]. Suad, H. (1998). *Manajemen Keuangan Teori dan Penerapan (Keputusan Jangka Pendek)* (Edisi Keempat ed., Vol. I). Yogjakarta: BPFE-Yogjakarta.
[46]. Sugiyono. (2017). *Metode Penelitian Bisnis; Pendekatan Kuantitatif, Kualitatif, Kombinasi dan R&D.* Bandung: Alfabeta.
[47]. Suyana, U. M. (2016). *Aplikasi Analisis Kuantitatif.* Denpasar: cv.sastra utama.
[48]. Tandelilin, E. (2010). *Portoflio dan Investasi: Teori dan Aplikasi* (Edisi Pertama ed.). Yogjakarta: Kanisius IKPAI Yogjakarta.
[49]. Utama, M. S. (2016). *Aplikasi Analisis Kuantitatif untuk Ekonomi dan Bisnis.* Denpasar: CV Sastra Utama.
[50]. Utomo, L. L. (2000, Mei). Intrumen Derivatif: Pengenalan Dalam Strategi ManajemenRisiko Perusahaan. *Jurnal Akuntasi dan Manajemen Keuangan*, 53-68.
[51]. Valasco, L. G. (2014). Factors Influencing Derivatives Usage by Selected Listed Companies in Philippines. *Philippines Management Review, 21*, 1-12.
[52]. Vural-Yavas, C. (2016). Determinants of Corporate Hedging: Evidence from Emerging Market. *International Journal of Economic and Finance, 8*(12), 151-162.

[53]. Wiagustini, N. L. (2014). *Manajemen Keuangan.* Udayana University Press.
[54]. Wild, J. J., Wild, K. L., & Sumati, V. (2014). *International Business: The Challenge of Globalization* (7th Edition ed.). London, England: Peason Education Limited.
[55]. Windari, I. G. (2019). Pengaruh Leverage, Ukuran Perusahaan dan Likuiditas Terhadap Keputusan Hedging Pada Perusahaan Manufaktur Terdaftar i BEI. *E-Jurnal Manajemen, 8*, 4815-4850.
[56]. Yong, H. H., Faff, R., & Chalmers, K. (2014). Determinants of the extent of Asia-Pacific banks' derivative activities. *Accounting and Management Information Systems, 13*(3), 430-448.