TRANSFER PRICING MODEL

SKRIPSI

Presented in partial fulfillment of the requirements for
The Bachelor's Degree in Accounting

by

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008201500087

FACULTY OF BUSINESS

ACCOUNTING STUDY PROGRAM

PRESIDENT UNIVERSITY

CIKARANG, BEKASI

2019

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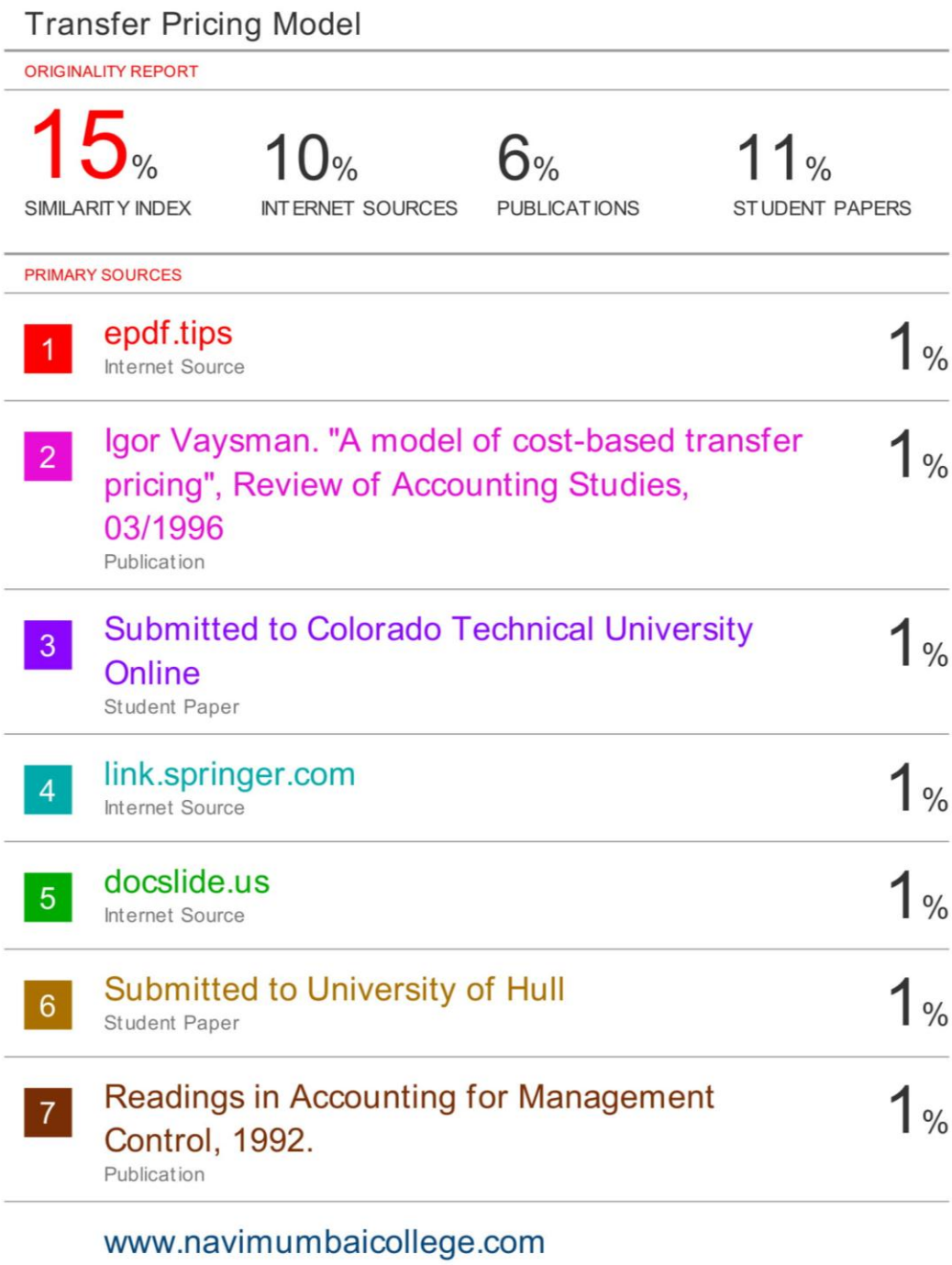

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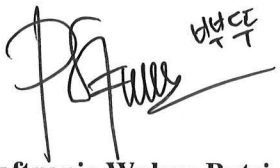

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submitted by **Putu Seaftyanie Wahyu Putri**, Accounting Study Program, Faculty of Business, has been assessed and proved to pass the oral examination held on Friday, 25 January 2019.

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ACKNOWLEDGEMENT

In the name of God,

First of all, the researcher would like to deliver the highest gratitude to God, for His almighty and blessing during the completion of this research. The research entitled **"Transfer Pricing Model"** is established to complete the requirement for me to finish the education in President University Accounting Major. I would also like to express sincere appreciation and deepest thankfulness to those who already gave their help, contribution, guide and support in making this study completed.

1. Deepest gratitude goes to Mr. I Ketut Suarta and Mrs. Sri Sababiyah as my parent for always support and understands me during the process of the thesis. Thank you also for the pray and the advices.
2. My advisor, Dr. Josep Ginting, CFA for his great guidance and continuous support. The success of this research is built within his constructive feedbacks and mentoring during the research construction.
3. The Dean of Faculty of Business, Accounting Study Program Lecturers and Accounting Study Program Staffs of President University who already give their best assistance and guidance to support all accounting students finish their education in President University.
4. Mrs. Andi Ina Yustina, M.Sc.,CMA. as Head of Accounting Study Program President University. I would like to express my gratitude for Mrs. Ina for the support, motivation, encouragement and choose me the best advisor that can guide from beginning until finishing my thesis.

5. My lovely friends (PINY's) Intan Permatasari, Nadila Natasha Nugraha, Yola Srirezeki Napitupulu who always beside me from the beginning in campus life until finishing, support, cheering me, and also remind me to finishing my thesis.
6. My best friends and important person for me Kak Candra Sentosa, Dewi Puspita Sari, Christiana Tjitradinata, Muhammad Harddisk Bintang Zulfikar, Gemariah Kalla Langi, for all of your support and encouragement from the beginning until the end of this thesis.
7. My co-workers of PT. Graha Buana Cikarang: Mr. Viggo Christianto, Mr. Hery Kurniawan, Mr. Stevanus Eduard Piterson, Mrs. Rina Kuswati, Mrs. Isti, Mrs. Lisa and other co-workers, thank you so much for support, and remind me to finishing my thesis.

To those who indirectly contribute in this research, your kindness matters a lot for the researcher. Thank you for all endless support.

Cikarang, 15th January 2019

Putu Seaftyanie Wahyu Putri

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ABSTRACT

The aim of this research is to find a new model transfer price and find out how the calculation of fair transfer prices with existing methods is based on market prices, cost, and negotiation. Based on the previous study which in each method has some weaknesses, that weaknesses of market-based transfer prices are the non-existence of market, or the imperfection of the market; and the cost information may not exist or not available in detail for each division as the weaknesses of cost-based transfer prices; moreover, negotiated transfer prices for the process that is time consuming and need to be updated constantly following the changes. (Hongren et al., 2015)

This research is a mix research which is between qualitative and quantitative research. Data collection techniques in this study are secondary data, which are taken from journals, books, and websites such as the Indonesia Stock Exchange, Bank Indonesia, etc. The sample in this study is a manufacturing companies in the field of cigarettes, food and refreshment that listed on the Indonesia Stock Exchange, which are PT Hanjaya Mandala Sampoerna Tbk., PT Gudang Garam Tbk., PT Bentoel Internasional Investama Tbk., PT Indofood Sukses Makmur Tbk., And PT Unilever Indonesia Tbk. by analyzing the Annual Report from the period 2015 to 2017. Then, applying the previous and new models to each sample, then comparing them and calculating the standard deviation and standard error in the model to be accurately.

The results of this study show that the new model transfer prices is better than the cost-based transfer price calculation, where the results of standard deviations and standard errors on the new model are smaller than the cost-based transfer prices. So, the new model of transfer pricing more accurately, and effectively.

Keywords: *Transfer Pricing, Fairness, Market-Based, Cost-Based, Negotiated.*

TRANSFER PRICING MODEL

INTISARI

Tujuan dari penelitian ini adalah untuk menemukan model perhitungan harga transfer yang baru dan mengetahui bagaimana perhitungan harga transfer yang wajar dengan metode yang ada yaitu berdasarkan harga pasar, biaya, dan Negosiasi. Berdasarkan penelitian sebelumnya dimana masing-masing metode harga transfer memiliki kekurangan, yaitu penentuan harga transfer berbasis harga pasar adalah tidak adanya harga pasar, atau ketidaksempurnaan pasar; dan harga transfer berbasis biaya adalah informasi biaya mungkin tidak ada atau tidak tersedia secara terperinci untuk setiap divisi; Selain itu, harga transfer berbasis negosiasi adalah proses yang memakan waktu dan perlu diperbarui terus-menerus mengikuti perubahan. (Hongren et al., 2015)

Penelitian ini merupakan penelitian gabungan antara kualitatif dan kuantitatif. Teknik pengumpulan data di penelitian ini merupakan sekunder data, dimana diambil dari jurnal-jurnal, buku-buku, dan situs web seperti Bursa Efek Indonesia, Bank Indonesia, etc. Sampel dalam penelitian ini merupakan beberapa perusahaan manufaktur dibidang rokok, makanan, dan minuman yang terdaftar di Bursa Efek Indonesia yaitu PT Hanjaya Mandala Sampoerna Tbk., PT Gudang Garam Tbk., PT Bentoel Internasional Investama Tbk., PT Indofood Sukses Makmur Tbk., dan PT Unilever Indonesia Tbk. dengan menganalisa Laporan Tahunan dari periode 2015 sampai 2017. Kemudian, mengaplikasikan model sebelumnya dan yang baru ke setiap sampel, lalu membandingkannya serta menghitung penyimpangan dan kesalahan pada model supaya akurat.

Hasil dari penelitian ini menunjukkan bahwa model baru harga transfer lebih baik dibandingkan dengan perhitungan harga transfer berbasis biaya, dimana hasil dari standar penyimpangan dan standar error pada model baru lebih kecil dari harga transfer berbasis biaya. Jadi, model baru harga transfer lebih akurat dan efektif.

Kata kunci: *Harga Transfer, Kewajaran, Berbasis Harga Pasar, Berbasis Biaya, Berbasis Negosiasi.*

CHAPTER I

INTRODUCTION

1.1 Research Background

The phenomenon of globalization in the business world that occurs today has encouraged cross border transactions to happen between parents and subsidiaries companies. Hence, the flow of goods, people, services, and investment more easily and smoothly between countries. Many companies are beginning to expand their markets by opening branch offices both domestically and internationally. Such market expansion activities will lead to the formation of multinational companies, which are an international or transnational corporation whose headquarters are located in a country with branches and factories scattered in various countries, it could be developed countries as well as in developing countries.

The environment of multinational companies will arise related party transactions where the transaction occurred among fellow members of the company which include sales of goods and services, licensing of intangible assets, provision of loans, and so on. This can lead to an indication of the practice of transfer pricing. Transfer pricing is a topic that take place in accounting as cost and revenue allocation method among divisions or subunits in decentralized company (Sikka & Willmott, 2010). These days,

transfer pricing begins standing out enough to be noticed in more extensive zones including tax which the differences in tax rates may emerge.

Transfer pricing can impact the divisional manager's performance. Therefore, the management might be reluctant to establish the transfer price that will only maximize the enterprise wholesome but harm their division's outcomes, which later will determine their incentives portion (Drury, 2004). Referring to Wong et al. (2011), said that by applying the two sets of books system which is system of decoupling can be fixed the troubled situation of transfer pricing objectives for managerial and tax purposes.

Widespread development of multinational corporation as the impact of economic, business and investment internationalization will not only give positive benefit to anticipate differences in resources and competences of all around the world, but also cause a new threat for fiscal authorities in their way to secure the tax revenue collected from the society. One of new threat in taxation field along with the globalization and the development of Multinational Corporation is about the fairness determination of transaction price between the related parties

According to Emmanuel & Gee (1982), fairness presents where there is a minimum discrimination against the transferor (selling department) or the transferee (buying department). Divisional managers should agree on how to price internally goods those are traded, and any manager must have the capacity to confirm that the transfer price charged are reliably registered

with the agreed procedures. They used the market based transfer prices for the procedure to their research, but the procedure is not achieve for all transfer pricing problems; specially it has little relevance where the product transferred is subject to so much technical change. Moreover, for many products, market-based transfer pricing is impossible or impractical. Horngren et al. (1997) identified some reasons why an intermediate product may not have an easily computed market price. First, the product may be a specialized component. Second, price lists may not be widely available. Third, the internal product may differ from ones available externally in quality or customer service. The weakness of market-based transfer pricing is the existence of the market itself of when it does not exist, or it may be imperfect. (Horngren et al., 2015)

Many firms base their intra-company trade on cost-based transfer prices. However, cost-based transfer pricing encompasses a range of different methods. These methods are based on either standard or actual costs, often including markups. (Pfeiffer et al., 2011) investigate reported standard-cost transfer prices based on the supplier's cost report, found that reported standard-cost transfer pricing outperforms the other methods does not have sufficient cost information. The weaknesses of cost-based transfer pricing that is the cost information may not exist or not available in detail for each division, why need this because cost-based transfer prices is the model that focused on the internal part. (Horngren et al., 2015)

Besides cost-based and market-based transfer pricing method, negotiated transfer pricing is also become a choice for a company to record their intra-company transactions. According to Wielenberg, S (2000), negotiated transfer pricing based on minimum-quantity contracts has limitations as well. First, they mechanism generally will not induce the first-best capacity and investment decisions in cases where seller and buyer have to undertake specific investments. Second, negotiated transfer pricing may fail to induce the first-best under asymmetric information between buyer and seller, since negotiations in this situation may lead to inefficient outcomes. Furthermore, if departments lack of other's valuation information, it can't readily recognize the whole gains from the transactions (Baldenius et al., 1999). Another weakness for negotiated transfer pricing is the process that take time may should be surveyed over and again as conditions change. (Horngren et al., 2015)

From the discussion above, we already seen some methods in the transfer pricing, they are market-based transfer prices, cost-based transfer prices, and negotiated transfer prices. We look at the weakness of this approach, then become a lead for the researcher to discover other method for count the transfer pricing to make reasonable amount. Therefore, this research entitled "**TRANSFER PRICING MODEL"**

1.2 Research Problem and Questions

Transfer pricing calculation methods which are market-based transfer prices, cost-based transfer prices, and negotiated transfer prices are used in accordance with the conditions and needs of each company. Each method has strengths and weaknesses. According to Hongren et al., (2015), suggests that weaknesses of market-based transfer prices are the non-existence of market, or the imperfection of the market; and the cost information may not exist or not available in detail for each division as the weaknesses of cost-based transfer prices; moreover, negotiated transfer prices for the process that is time consuming and need to be updated constantly following the changes.

Through the above problem stated, researcher has formulated questions that needed to be answered in this research:

1. Is there any other model that can be explored for the calculation of transfer pricing? and which method or model is better?

1.3 Research Objectives

The objectives of this research is to find out any model of transfer pricing method who can describe whether the transfer pricing is still reasonable or not. By comparing the old method with the proposed new one method.

1.4 Research Scope and Limitations

In collecting the data for this study, the researcher would limit this study only focuses on the transfer pricing especially the calculation model of transfer pricing where applied the old model and the new model that proposed by researcher for getting the best model that have a reasonable amount or fairness of transfer pricing model, by compare the old model that being exists from previous research. By conducting the model which cost-based transfer prices and the new model to the company that listed on Indonesia Stock Exchange. Meanwhile, users cannot generalize the results directly as the best method, this needs to be examined more in the future. The periods of which company are tested are also not too long which is from 2015-2017. Thus the time series data not too strong.

1.5 Benefits of Research

By conducting the research about the fairness of transfer pricing method, the researcher expects the result could be useful for several parties, such as:

1. For researcher

   This research will provide significant knowledge for researcher about the transfer pricing method which are market-based transfer prices, cost-based transfer prices, and negotiated transfer prices. And, the fairness of transfer pricing method itself.

2. For company

   This research is expected to give a useful information and reference for the company to make decision toward the transfer pricing method that they can apply in the company with reasonable amount.

3. For government

   This research is expected to give a useful information and reference for the government to be able to pay more attention to the issue of transfer pricing, which is not fair done by the company that can give effect to the state revenue.

4. For regulators

   This researcher reminds regulator to pay attention about the transfer pricing to set the method that still reasonable or not, and set to disclose about transfer pricing in the financial statements.

CHAPTER II

LITERATURE REVIEW

2.1 Theoritical Review

2.1.1 Transfer Pricing Theory

In a decentralized organization, generally the decision-making come from the individual subunits itself. Subunits interact by supplying products to others. Top management uses transfer prices to manage the subunits activities and to assess their outcomes. Transfer pricing is the amount of the price on the delivery of the goods or the rewards of the delivery of services agreed upon by both parties in a financial business transaction or other transaction.

The definition of transfer pricing can be classified into two which are broad definition and narrow definition. In broad definition, transfer pricing is the products' value transferred by a center of accountability to the other center of responsibility. In a narrow definition, transfer pricing is the products' value those transferred between two or more profit centers. In addition, there are two kinds of transactions in transfer pricing; intra-company transfer pricing and inter-company transfer pricing. Intra-company transfer pricing is the transfer pricing between divisions within one company. Meanwhile, Inter-company transfer pricing is transfer pricing between two companies with special relationship based on

agreement, where the transaction can take place in one country (domestic transfer pricing), or with different countries (international transfer pricing).

The main purpose of transfer pricing is to evaluate and measure company performance. But, often transfer pricing is used by multinational companies to reduce the amount of tax paid through price engineering transferred between divisions. The existence of a special relationship is the key to the practice of transfer pricing in the field of taxation.

Transfer pricing often trigger problems, especially in determining the price of the agreement, because it involves two units, which the buyer unit and the seller unit. Transfer pricing also affects the unit profit measurement, high transfer prices will harm the buyer's unit while the transfer pricing that is too low will harm the seller unit, then the transfer price is very important.

According to Gunadi (2006), transfer pricing causes injustice in taxation due to differences in corporate structure. Companies that are broken down into a group can engineer profits so as to minimize taxes. Meanwhile, a single company must pay taxes as they are.

In general, the purpose of transfer pricing is to move financial data between departments or divisions of the company when they use each other's goods and services. In addition, transfer pricing is used to evaluate division performance and motivate division managers of buyers and sellers to decisions that are compatible with the overall objectives of the company.

Whereas in multinational companies, transfer pricing is used to reduce the taxes that they incur throughout the world.

According to Horngren, et al. (2015), a transfer pricing is the price on subunit charges for a product supplied to another subunit of the same company. The transfer price creates revenue value for the selling subunit and costs value for the buying subunit, influencing every subunit's operating income. This operating income is used by top management to assess the subunit's performances and to motivate their managers. There are several criteria to help a company achieve its goals, as follows:

1. Transfer prices should encourage goal conformity of the company.
2. It should generate managers to make use a high level of effort. Subunits selling products should be motivated to keep their costs low; subunits purchasing the products should be motivated to purchase and use the inputs efficiently.
3. Transfer prices could give top management assistance in assessing its subunits performances.
4. In case of decentralized top management, subunit's autonomy in transfer prices decision making should be maintained. Subunit manager in order to make the operating income optimum should be given the freedom to choose between doing transfer pricing with different subunits of the company or with external parties that would be more beneficial.

There are three broad categories of method for determining transfer prices:

1. *Market-based transfer prices*. Top management may choose to use the price of a similar products publicly listed. Top management may also refer to the external price that a subunit charges to outside customers as the internal price.
2. *Cost-based transfer prices.* Top management could use the cost of producing the product in question as transfer price base. The cost used can be both actual or budgeted cost. Occasionally, this method incorporates a markup or profit margin that is a return on subunit investment.
3. *Negotiated transfer prices.* Top management may implement, for instance by assigning a transfer price that is an average cost of the producing and transporting the product internally and the market price for products those can be compared. This method is often applied when market prices are volatile and constantly moving.

Furthermore, when the company conducts transfer pricing to achieve one of its objectives, which to minimize their tax payment, this will adversely affect to the state revenues. Therefore, each method that they use should have limits that are said to be reasonable or fair, which are still accepted and in accordance with existing rules. Based on Emmanuel & Gee (1982), fairness occurs where there is a minimum discrimination against the transferor (selling department) or the transferee (buying department). Neutrality exists where there is a minimum persuasion from

the profit-seeking managers (buying or selling department) to come up at the decisions those are inconsistent with profit-seeking according to the company altogether. They decided by two procedure which is fairness and neutrality, where the procedure is not accomplish for all transfer pricing problems; specifically it has little influence which product transferred has many technical changes.

2.1.2 Market-based Transfer Prices

A market based transfer prices will promote goal conformity if the majority of the accompanying conditions exist, where in the relatively rare situation which a perfectly competitive external market exists for internally traded goods or services, it is optimal for both decision making and performance evaluation purposes to set transfer prices at competitive market prices.

According to Horngren, et al. (2015), market-based transfer prices is the method that top managers may choose to use the price of a similar product or service publicly listed in. Or they may choose the external price that a subunit charges to outside customers. This method are satisfied when fulfill three conditions, as follows: (1) The intermediate product's market is perfectly competitive, (2) Minimal interdependencies among subunits, (3) No additional costs or benefits to the company from buying or selling in the external market instead of transacting internally.

A perfectly competitive market exists where the product is homogenous and no buyer or seller can by his own affect the price. By such method, a company can (1) promote goal conformity, (2) induce management effort, (3) evaluate and assess the subunits performance, and (4) preserve its autonomy. This method will be effective when the selling profit center could sell all of its products to insiders or outsiders and the buying center can obtain all of its requirements from either outsiders or insiders.

On the other hand, for many products, market-based transfer pricing is impossible or impractical because there is some conditions may affect, where the limitations or weaknesses of may exists in this method. Horngren et al. (1997) mentioned several reasons why an intermediate product may not have an easily computed market price: the product may be a specialized component; price lists may not be generally exist; and the quality or customer service of internal products may differ from ones available externally.

2.1.3 Cost-based Transfer Prices

Cost-based transfer prices are useful when market prices are inaccessible, unseemly, or too costly to obtain, such as when markets are not perfectly competitive, when the product is specialized, or when the internal product is not the same as the items accessible remotely as far as its quality and the customer service provided for it. Two decisions must be

made in a cost-based transfer prices: (1) how to define cost and (2) how to calculate the profit markup.

In the practice, many companies using transfer pricing based on the full cost of product's, where to approximate market prices, the cost based are sometimes set at the full cost plus a margin. Full-cost transfer prices offer several advantages. First, it provide a measure of long-run viability for a product or service to be economically sustainable with full cost, and not only marginal cost and must be recuperated by generate the margin above full cost. Second, full cost transfer are relatively easy to implement. Besides that, this method has weaknesses that is the cost information may not exist or not available in detail for each division, why need this because cost-based transfer prices is the model that focused on the internal part. (Horngren et al., 2015)

Pfeiffer et al. (2011) adopted asymmetric information at the trading stage with an incomplete framework, where the transfer pricing assists intra-company trade and provide incentives for value-enhancing specific investments. They compare actual cost transfer prices that include a markup over marginal costs with standard-cost transfer prices, and found that the actual cost-based transfer pricing becomes the greatest method when ex ante cost uncertainty is high and the buyer is well informed about the supplier's costs.

Anthony & Govindarajan (2007) thought that the standard cost is the general basis of transfer pricing. When standard costs are used, the transfer price is determined before the investment and trade decisions are produced. On the other side happens when actual costs are used, the transfer price is established after trade has been done and costs have been recognized. According to Horngren, et al. (2015), the top management may choose the transfer prices with Full-Cost bases, the formulation can be expressed as follow:

Transfer Price = 1.05 × (Purchase price from Gulfmex + Variable cost per unit of Transportation Division + Fixed cost per unit of Transportation Division)

Based on the formulation, there are some modifications for the model because some conditions such as detail of data of variable cost and fixed cost of transportation division not available in the annual report, and the percentage of markup will replaced by inflation source from Bank Indonesia. The model for cost-based transfer prices is:

Transfer Price = a × (Total Purchase Price + Total Transportation Expense)

Where, a is (1+inflation)

2.1.4 Negotiated Transfer Prices

Negotiated pricing is the most used hybrid method as it is easy to be applied. This method allows the selling and buying profit center

managers to negotiate each other. This policy can be effective only if the profit centers are not resistance to one another, such as when the selling profit center has probabilities to sell its product to outsiders and the buying profit center has some outside sources of supplies. Captivity obviously erodes bargaining power and undermines the negotiations. However, negotiated transfer prices often cause several other problems. Negotiating mostly large transactions will be time consuming and need to be updated constantly following the changes (Horngren et al. 2015).

Baldenius et al. (1999) adopted an incomplete contracting model to compare the alternative transfer pricing mechanisms effectiveness. Transfer pricing guides intra-company transfers and provides incentives for upfront investments at the divisional level. If the transfer pricing is done by negotiation method, subunits managers will have less incentives since there is a hold up issue. The model, these negotiations take place under symmetric information about net revenues and production cost. They found that that negotiated transfer pricing shows a better outcome than standard-cost transfer pricing. When the selling division invests, standard-cost transfer pricing can reduce the hold-up issues but keeps deviances in the quantities transferred because of the selling division' pricing that is dominating.

Moreover, Wielenberg, S (2000) thought that negotiated transfer pricing based on minimum-quantity contracts has limitations as well. First, they mechanism generally will not induce the first-best capacity and

investment decisions in cases where seller and buyer have to undertake specific investments. Second, negotiated transfer pricing may fail to induce the first-best under asymmetric information between buyer and seller, since negotiations in this situation may lead to inefficient outcomes.

2.1.5 The Model

Based on what has been explained by previous researchers about transfer pricing, especially the method of calculating transfer prices which are market-based transfer prices, cost-based transfer prices, and negotiated transfer prices. In each methods, there is some weakness, we look at the weakness of this approach, then become a lead for the researcher to discover other method for count the transfer pricing to make reasonable amount.

Regarding that explanation so, researcher proposes the first formula as the basic of transfer pricing where market based is based on the price of similar product or service on the market (Hongren et al., 2015), which is:

Transfer Pricing = Market Price of Product

Furthermore, based on previous research by Anthony & Govindarajan (2007), thought that the transfer price should be similar to the price that would be charged if the product were sold to outside customers or purchased from outside vendors, as the fundamental principle. Then, by Pfeiffer et al. (2011) where they discuss cost-based transfer prices by describing the model in which the expected firm-wide profit is

used as a formula and compare the actual cost transfer prices that include a markup over marginal costs with standard-cost transfer prices. Actual cost is the historical recognized cost which is different with budgeted cost that is (a future cost). Therefore, for propose of the second formulation is the existence of profit from the results of the transfer pricing made and the actual cost, can be expressed as:

Transfer Pricing = Actual Cost + Expected Profit ……. (1)

Market = Actual Cost + Expected Profit ……

$\mathbf{E_{(R)} = (\mathit{Rf} + Inflation) \times Actual\ Cost}$ **…….…….. (2)**

$\mathbf{E_{(p)} = E_{(R)} - E_{(expense)}}$ **…….. (3)**

$\mathbf{Transfer\ Pricing = Actual\ Cost + [E_{(R)} - E_{(expense)}]}$**……..... (4)**

$\mathbf{Transfer\ Pricing = Actual\ Cost + (Actual\ Cost \times (\mathit{Rf} + Inflation)) - E_{(expense)}}$ **…..... (5)**

From the above formula we can conclude that market based is equal as actual cost plus inflation will be the calculation of the profit. The actual cost will be replaced by cost of goods sold of the company. The profit is come from the revenue deducted with the expenses. As we know when we enter the market price it will be faced with the expected profit. Expected profit is the probability of receiving a certain profit times the profit. Expected profit is still adjusted for inflation because 1 billion at an exchange rate of 15,000 is certainly different from the 1 billion at an exchange rate of 13,000 or 16,000.

Inflation is defined as price increases in general and continuously for a certain period of time. According to Dwijayanthy & Naomi (2009) in their research states that inflation affects the profitability of banks. Then, Supriyanti (2009) states that the level of inflation has a significant effect on ROE (Return of Equity). According to Grant & Mathews (1956), Inflation influences margins by responding on sales volume, influencing the level of costs and changing the relationship between costs and prices. Manufacturing and trading companies' pricing policy is very important during a period of inflation since it assign selling prices by referring to the production costs first.

Furthermore, risk free because as we know a risk-free rate of return is the interest rate an investor can expect to earn on an investment that carries zero risk. It will use the data based on BI rate while Bank Indonesia strengthened monetary operations by introducing a new policy rate known as the BI 7-Day (Reverse) Repo Rate, effective from 19th August 2016. Then, expenses is decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or incurrence of liabilities that result in decreases in equity, other than those relating to distributions to equity participants. It will affect the transfer pricing as a deduction in this formula, because basically as we know that profit is revenue deduct with expense. The total expenses are from the selling expenses added general and administrative expenses and added the other expenses.

CHAPTER III

RESEARCH METHOD

3.1 Research Method

In this study, researcher use a mix research which is combined the qualitative research and quantitative research. Qualitative approach is chosen because the author conducted the study that emphasizes the aspect of an in-depth understanding of a problem rather than seeing the problem for generalization research, author also propose the new model for this research where the theoretical foundation or the concept is used as a guide, so that the focus of research is in accordance with the facts in the field.

Meanwhile, the quantitative approach is chosen because the author conducted the data processing that already collected, verification and also measure to determine the accuracy of existing models and new one proposed by using Standard Deviation (σ) and Standard Error (S_E). This research is utilized to process numerical data to test a theory of the hypothesis or show the relationship between the variables by using statistical analysis (Creswell, 1994). The method of data recovery is using a secondary method which obtained through Indonesian Stock Exchange Web-site. The sample used is the manufacturing companies especially in the field of cigarettes listed on the IDX list.

This study use explanatory analysis and verification methods, where researcher tried to explore the former theories and locate its weaknesses to form a new output. In accordance with the objectives of this study, data is collected that are appropriate and necessary. And, verification method is a method for testing the significance of theory or accuracy the method by using a statistical calculation.

3.2 Companies Profile

3.2.1 PT Hanjaya Mandala Sampoerna Tbk.

Table 3.1 Company Profile PT Hanjata Mandala Sampoerna Tbk.

Company Name	**PT Hanjaya Mandala Sampoerna Tbk.**
Business Sector	Tobacco, Cigarettes
Address	Jalan Rungkut Industry Raya No. 14-18 Surabaya 60293, East Java
Year Establish	1963
No of Employees	28,212
Net Income (Net Loss)	12,670,534
Total Asset	43,141,063
Cost of Goods Sold	(74,875,642)

Source: Annual Report HMSP Period 2017

PT Hanjaya Mandala SampoernaTbk. was established in Indonesia on October 19 1963, where the activities of the Company comprises manufacturing and trading of cigarettes and investing in other companies. Since 1913, the Company started commercial operations in Surabaya. Sampoerna is the leading tobacco company in Indonesia, as the subsidiary of PT Philip Morris Indonesia (PMID) and an affiliate of Philip Morris International Inc., the world's leading international tobacco company.

3.2.2 PT Gudang Garam Tbk.

Table 3.2 Company Profile PT Gudang Garam Tbk.

Company Name	**PT Gudang Garam Tbk.**
Business Sector	Tobacco, Kretek Cigarettes
Address	Jl. Jenderal A. Yani 79 Jakarta 10510, Indonesia
Year Establish	1958
No of Employees	35,272
Net Income (Net Loss)	7,755,347
Total Asset	66,759,930
Cost of Goods Sold	65,084,263

Source: Annual Report GGRM Period 2017

Gudang Garam, is a leading producer of kretek cigarettes, the clove cigarette synonymous with Indonesia and the dominant cigarette category. Under reference GGRM on the Indonesian Stock Exchange (IDX), the Company's shares were traded in a range from a low of Rp 60,050 to a high of Rp 83,800 per share during 2017.

3.2.3 PT. Bentoel Internasional Investama Tbk.

Table 3.3 Company Profile PT Bentoel Internasional Investama Tbk.

Company Name	**PT. Bentoel Internasional Investama Tbk.**
Business Sector	Tobacco and Cigarettes
Address	Capital Place Office 6th Floor, Jl. Gatot Subroto Kav. 18 Jakarta Selatan 12950
Year Establish	1930
No of Employees	Over 6,000
Net Income (Net Loss)	(480,063)
Total Asset	14,083,598
Cost of Goods Sold	18,160,853

Source: Annual Report RMBA Period 2017

PT. Bentoel Internasional Investama, Tbk is a member of British American Tobacco Group which the second largest quoted tobacco group in the world by global market share with brands sold in over 200 markets.

Bentoel Group is the fourth largest cigarette manufacturer in Indonesia with approximately 7% market share.

3.2.4 PT. Indofood Sukses Makmur Tbk.

Table 3.4 Company Profile PT Indofood Sukses Makmur Tbk.

Company Name	**PT. Indofood Sukses Makmur Tbk.**
Business Sector	Foods and Refreshment
Address	Sudirman Plaza, Indofood Tower, 27th Floor, Jl. Jend. Sudirman Kav 76-78, Jakarta 12910
Year Establish	1990
No of Employees	84,898
Net Income (Net Loss)	5,145,063
Total Asset	87,939,488
Cost of Goods Sold	50,318,096

Source: Annual Report INDF Period 2017

Indofood has progressively transformed into a Total Food Solutions company. As of 31 December 2017, PT Indofood Sukses Makmur Tbk has 8,780,426,500 shares with a par value of Rp100 per share, were listed on the Indonesia Stock Exchange with total registered shareholders exceeding 14,000.

3.2.5 PT. Unilever Indonesia Tbk.

Table 3.5 Company Profile PT Unilever Indonesia Tbk.

Company Name	**PT. Unilever Indonesia Tbk.**
Business Sector	Foods, Refreshment, and Household needs
Address	Gedung BeritaSatu, 7th Floor, Jl. Jend. Gatot Subroto Kav. 35-36, Jakarta 12950
Year Establish	1933
No of Employees	6,008
Net Income (Net Loss)	7,004,562
Total Asset	18,906,413
Cost of Goods Sold	19,984,776

Source: Annual Report UNVR Period 2017

Unilever Indonesia, one of Indonesia's leading fast moving consumer goods companies, has been a major player in the country's consumer goods sector since its establishment 84 years ago, on 5 December 1933. Since 1981, as a public company and the shares have been listed since 11 January 1982, first on the Jakarta and Surabaya Stock Exchanges and now the IDX.

3.3 Data Collecting

The The research is using secondary data, where the researcher only uses the data which are available online or offline source. The data is divided into two:

a) The data for qualitative is from the derivation of concepts and formulas that have been there from previous research, where the concurrent concepts of previous research have weaknesses in each transfer pricing method. It obtained from the journals and books.
b) The sample of this research is used for testing the model of transfer pricing. It obtained from annual reports of manufacture companies especially in the field of cigarettes, food and refreshment, and household needs that listed in Indonesia Stock Exchange from period 2015-2017. The researcher collected the 5 companies' annuals reports, within the period of 2015 till 2017. Here are the list of companies that being used in the research:

Table 3.6 List of Companies

No	Stock Code	Company Name
1	HMSP	PT Hanjaya Mandala Sampoerna Tbk.
2	GGRM	PT Gudang Garam Tbk.
3	RMBA	PT Bentoel Internasional Investama Tbk.
4	INDF	PT Indofood Sukses Makmur Tbk.
5	UNVR	PT Unilever Indonesia Tbk.

Source: Adjusted by researcher, 2018

The researcher prefers to use secondary data since the data needed for the research are available in companies' annual reports. The data in annual reports that related to the transfer pricing model which are cost based transfer prices and the new model that proposed by author. That are total purchases prices (related parties), transportation and distribution expenses, cost of goods sold, selling expenses, general and administrative expenses, other expenses, will be documented by using Microsoft Excel. The actual cost in the new formula is represented by cost of goods sold, it obtained from the annual report. And, the total expenses is from the selling expenses, general and administrative expenses, and other expenses.

For the inflation, the data will be taken from the website of the Bank Indonesia in the period of 3 past years (2015 until 2017). The data obtained in the form of monthly, therefore it requires an average inflation per year by summing all then divided by 12. Furthermore, the risk free also taken from the website of the Bank Indonesia in the period of 3 past years (2015 until

2017), where use BI 7-Day Repo Rate as the benchmark interest rate applies from August 19, 2016. Prior to that period, the benchmark interest rate uses the BI Rate. BI Rate applicable officially as the benchmark interest rate since 2005. The inflation and risk free will be documented by using Microsoft Excel.

3.4 Research Process

This research, was processed by the steps as follow:

a) Evaluation of existing formulas or models, to find the weaknesses of each model.
b) Formulate a new model for transfer pricing. Based on the weaknesses of transfer pricing model (Chapter 2 for more detail) therefore the authors formulate a new model which will be tested for accuracy.
c) Implementing a new model on the selected sample.
d) Comparing the results of cost-based transfer prices models to the proposed model.
e) Measure the validity and accuracy of the new models of transfer pricing.

3.5 Statistical Analysis Method

In this section, the reseacher discusses more about the data analytical processes for the research which is the descriptive stastistics. The descriptive stastistics are used to describe statistical data of all variables

that being used in the research, for giving a broader picture about the variables without drawing any conclusion (Sugiyono, 2007). The data will be presented in the form of mean of the sample, the number of observations in the sample, the value of each observation in the sample, standard deviation, and standard error. Mean is the average value of the collected group data, the number of observations in the sample is n. Standard deviation (σ) is a measure that is used to quantify the amount of variation or dispersion of a set of data values. And, standard error (S_E) is the standard deviation of the sampling distribution of a statistic. Mean value together with standard deviation will describe the the data dissemination.

For determine the accuracy of existing models and new one proposed by using Standard Deviation (σ) and Standard Error (S_E) based on Lind, et al. (2006), the manually of formula as follow:

$$\sigma = \sqrt{\sum \frac{(X-\overline{X})^2}{n-1}}$$

Where:

σ is the standard deviation

X is the value of each observation in the sample

$\overline{X}$ is the mean of the sample, where $\overline{X} = \frac{\sum x}{n}$

n is the number of observations in the sample

$$S_E = \frac{\sigma}{\sqrt{n}}$$

Where:
- SE is the standard error
- σ is the standard deviation
- n is the number of observations in the sample

But, this research calculate the standard deviation and standard error using Microsoft Excel, the format as follow:

Standard Deviation **"=STDEV(number1, [number2], …)"**

Standard Error **"=STDEV(number1, [number2], …) / SQRT(number)"**

3.6 Research Model

In this research for transfer pricing method, there is two model that will analysis which are cost-based transfer prices and the new model proposed by the author. First, the cost-based transfer prices model, this model is according to Horngren, et al. (2015). It will Full-Cost Bases, the formulation can be expressed as follow:

Transfer Price = 1.05 × (Purchase price from Gulfmex + Variable cost per unit of Transportation Division + Fixed cost per unit of Transportation Division)

Based on the formulation, there are some modifications for the model because some conditions such as detail of data of variable cost and

fixed cost of transportation division not available in the annual report, and the percentage of markup will replaced by inflation source from Bank Indonesia. The model for cost-based transfer prices is:

Transfer Price = a × (Total Purchase Price + Total Transportation Expenses)

Where, a is (1+inflation)

Second, the new model proposed in this paper is based on the weaknesses of the transfer pricing model in previous studies. The model of the transfer pricing is equal to market price of product. The formulations are include the actual cost, expected profit include risk free, inflation, and expenses as variables that will affect the transfer pricing calculation which is said to be fair. As mentioned at chapter 2 for the detail of formulation, new proposed model can be expressed as follow:

Transfer Pricing = Actual Cost + Expected Profit ……. (1)

Market = Actual Cost + Expected Profit ……

$\mathbf{E_{(R)} = (}\boldsymbol{Rf}\mathbf{ + Inflation) \times Actual\ Cost}$ **…….…….. (2)**

$\mathbf{E_{(p)} = E_{(R)} - E_{(expense)}}$ **…….. (3)**

$\mathbf{Transfer\ Pricing = Actual\ Cost + [E_{(R)} - E_{(expense)}]}$**……..... (4)**

$\mathbf{Transfer\ Pricing = Actual\ Cost + (Actual\ Cost \times (}\boldsymbol{Rf}\mathbf{ + Inflation)) - E_{(expense)}}$ **…..... (5)**

CHAPTER IV

RESULT ANALYSIS, DISCUSSION AND IMPLICATION

4.1 Result and Discussion

4.1.1 Market-based Transfer Prices

Market price refers to a price in an intermediate market between independent buyers and sellers. When there is a competitive external market for the transferred product, market prices work well as transfer prices. The market price used for internal transfers could be the listed price of an identical (or similar) product or service, the actual price the selling entity charges external customer (perhaps less a discount that reflects lower selling costs for internal customers), or the price a competitor is offering (Merchant & Van der Stede, 2012). According to Horngren et al. (2015), Transferring products or services at market prices generally leads to optimal decisions when the market for the intermediate product is perfectly competitive. A perfectly competitive market exists where the product is homogenous and no buyer or seller can by his own affect the price. Besides that, from the market-based transfer prices method itself, there are several weaknesses, namely that not all products have market prices (market may not exists) or it may be imperfect, and also difficult to determine market prices where fluctuations occurred. Therefore, these

conditions can influence in this research at PT. Hanjaya Mandala Sampoerna Tbk, PT. Gudang Garam Tbk., PT. Bentoel Internasional Investama Tbk., PT. Indofood Sukses Makmur Tbk., and PT. Unilever Indonesia Tbk. where the data used is only with the 2015 until 2017 annual reports taken from Indonesia Stock Exchange (IDX) and the company not provide detailed information and expose it, whereas this method it requires detailed data in each product, especially the market price of the products that occurred in 2015 until 2017. It becomes difficult to investigate further the fairness of the market-based transfer prices method itself.

4.1.2 Cost-based Transfer Prices

Cost-based transfer prices are useful when market prices are inaccessible, unseemly, or too costly to obtain. In practice, many companies use transfer prices based on a product's full cost. To approximate market prices, cost-based transfer prices are sometimes set at the full cost plus a margin. These transfer prices, however, can lead to suboptimal decisions.

According to Horngren et al. (2015), the formula of full cost can be expressed as follow:

Transfer Price = 1.05 × (Purchase price from Gulfmex + Variable cost per unit of Transportation Division + Fixed cost per unit of Transportation Division)

Based on the formulation in the above, there is some modification for the model because some condition such as the detail of data variable cost and fixed cost of transportation division not available in the annual report, and the percentage of markup will replaced by inflation source from Bank Indonesia. So, the model for cost-based transfer prices is:

Transfer Price = a × (Total Purchase Price + Total Transportation Expense)

Where, a is (1+inflation)

The calculation of transfer pricing at PT. Hanjaya Mandala Sampoerna in the year 2015 by using cost-based transfer prices:

Transfer Price = a × (Total Purchase Price + Total Transportation Expense)

Transfer Pricing = 1.0638 × (13,433,198 + 3,561,463)

= 1.0638 × (16,994,661)

= 18,078,920

The result of calculation transfer pricing by using cost-based transfer prices, which applied to the PT. Hanjaya Mandala Sampoerna Tbk, PT. Gudang Garam Tbk., PT. Bentoel Internasional Investama Tbk., PT. Indofood Sukses Makmur Tbk., and PT. Unilever Indonesia Tbk. within the period of 2015 till 2017.

Table 4.1 Cost-based Transfer Pricing Results

(*Expressed in millions of Rupiah)

Transfer Pricing	Cost Based (Full Cost)		
	2015	**2016**	**2017**
HMSP	18,078,920	18,841,815	16,537,366
GGRM	2,184,420	2,493,019	2,647,238
RMBA	1,561,085	1,766,497	1,956,312
INDF	4,567,453	5,290,844	5,434,177
UNVR	7,251,452	7,735,392	7,872,467

Source: Reseacher data processed with Microsoft Excel 2013

4.1.3 Negotiated Transfer Prices

Negotiated pricing is the most used hybrid method as it is easy to be applied, by allowing the selling and buying profit center managers to negotiate between themselves. This policy can be effective only if the profit centers are not captive to one another. However, negotiated transfer prices often cause several other problems. Negotiating mostly large transactions will be time consuming and need to be updated constantly following the changes (Horngren et al. 2015). Then, the outcome of the negotiations often depends on the negotiating skills and bargaining power of the managers involved, rather than it likely being economically optimal (Merchant and Van der Stede, 2012). This affect the condition of this research at PT. Hanjaya Mandala Sampoerna Tbk., PT. Gudang Garam Tbk., PT. Bentoel Internasional Investama Tbk., PT. Indofood Sukses Makmur Tbk., and PT. Unilever Indonesia Tbk. where detailed information is needed between divisions or other parties to be investigated. Therefore, two parties or divisions are needed that can meet the criteria for

negotiating so that negotiations can occur. So, it is difficult to further examine the fairness of the negotiated transfer prices method itself.

4.1.4 The Model

Below is a derivative of the formula that I propose in this study, which is based on what has been explained before by Horngren et al. 2015 regarding market based, that is a market based is based on the price of similar product or service on the market. Therefore, the transfer pricing is equal with market price of product. As mentioned at chapter 2 for the detail of formulation, can be expressed as follow:

Transfer Pricing = Actual Cost + Expected Profit ……. (1)

Market = Actual Cost + Expected Profit ……

$\mathbf{E_{(R)} = (\mathit{Rf} + Inflation) \times Actual\ Cost}$ **…….…….. (2)**

$\mathbf{E_{(p)} = E_{(R)} - E_{(expense)}}$ **…….. (3)**

$\mathbf{Transfer\ Pricing = Actual\ Cost + [E_{(R)} - E_{(expense)}]}$**……..... (4)**

$\mathbf{Transfer\ Pricing = Actual\ Cost + (Actual\ Cost \times (\mathit{Rf} + Inflation)) - E_{(expense)}}$ **…..... (5)**

The model in the above is the final of the new formulation that will be further researched and applied to PT. Hanja Mandala Sampoerna Tbk., not only that but it will applied to the PT Gudang Garam Tbk. and PT

Bentoel Internasional Investama Tbk. as a comparison. After, the results from 3 companies came out, finally the author decided to add 2 more companies with different sectors such as PT. Indofood Sukses Makmur Tbk., and PT. Unilever Indonesia Tbk. By using the information from the annual reports 2015 until 2017 and also take another resource from the Bank Indonesia Web site. Transfer pricing is the price which must include how much is actually used from the beginning of making the product, starting from raw material to finished goods according to the flow of cost allocation.

The formulation, we include the actual cost, expected profit it's include risk free, inflation, and expenses as variables that will affect the transfer pricing calculation which is said to be fair. First, Actual cost is the historical recognized cost which is different with budgeted cost that is (a future cost). In this formula, the actual cost is obtained from the total of cost of goods sold. Second, as we know when we enter the market price it will be faced with the expected profit. Expected profit is the probability of receiving a certain profit times the profit. Expected profit is still adjusted for inflation because 1 billion at an exchange rate of 15,000 is certainly different from the 1 billion at an exchange rate of 13,000 or 16,000. Inflation is defined as price increases in general and continuously for a certain period of time, the data is source come from Bank Indonesia site. Furthermore, risk free because as we know a risk-free rate of return is the interest rate an investor can expect to earn on an investment that carries

zero risk. It will use the data based on BI rate while Bank Indonesia strengthened monetary operations by introducing a new policy rate known as the BI 7-Day (Reverse) Repo Rate, effective from 19th August 2016. Then, expenses will affect the transfer pricing as a deduction in this formula because the basic of profit itself is revenue minus expense. The total expenses are from the selling expenses added general and administrative expenses and added the other expenses.

Below is the data from Bank Indonesia site for the inflation. The indicator that is often used to measure the inflation rate is the Consumer Price Index or Indeks Harga Konsumen (CPI/IHK). It is the data from Januari-Desember years 2015 – 2017. To get a CPI/IHK a year, the CPI/IHK is added from January until December in each year and then divided by 12, to get the average CPI/IHK.

So, this is the data inflations 2015 – 2017 by average of Consumer Price Index or Indeks Harga Konsumen (CPI/IHK) in each year.

Table 4.2 Inflation Data

Inflation	2015	2016	2017
January	6.96	4.14	3.49
February	6.29	4.42	3.83
March	6.38	4.45	3.61
April	6.79	3.60	4.17
May	7.15	3.33	4.33
June	7.26	3.45	4.37
July	7.26	3.21	3.88
August	7.18	2.79	3.82
September	6.83	3.07	3.72
October	6.25	3.31	3.58
November	4.89	3.58	3.30

December	3.35	3.02	3.61
Total	76.59	42.37	45.71
Average per Year	**6.38**	**3.53**	**3.81**

(*Source: Bank Indonesia*)

Below is the monthly data of BI Rate or BI 7-day (Reserve) Repo Rate it use as the risk free in the year 2015 – 2017. To get the rate a year, the BI Rate need to add the rate from January until December then divided by 12. So, the average of BI Rate or BI 7-day (Reserve) Repo Rate in 2015 – 2017, as follows:

Table 4.3 BI Rate or BI 7-Day Repo Rate Data

BI Rate or BI 7-Day Repo Rate	**2015**	**2016**	**2017**
January	7.75	7.25	4.75
February	7.50	7.00	4.75
March	7.50	6.75	4.75
April	7.50	6.75	4.75
May	7.50	6.75	4.75
June	7.50	6.50	4.75
July	7.50	6.50	4.75
August	7.50	5.25	4.50
September	7.50	5.00	4.25
October	7.50	4.75	4.25
November	7.50	4.75	4.25
December	7.50	4.75	4.25
Total	90.25	72.00	54.75
Average per Year	**7.52**	**6.00**	**4.56**

(*Source: Bank Indonesia*)

The calculation of transfer pricing at PT. Hanjaya Mandala Sampoerna in the year 2017 by using the new model transfer prices:

Transfer Pricing = Actual Cost + (Actual Cost × (*Rf* + Inflation)) – $E_{(expense)}$

Transfer Pricing = 74,875,642 + (74,875,642 × (4.56% + 3.81%)) – 8,178,495
= 74,875,642 + ((74,875,642 × 4.56%) + (74,875,642 × 3.81%)) – 8,178,495
= 74,875,642 + (3,414,329.275) + (2,852,761.96) – 8,178,495
= 81,142,733.24 – 8,178,495
Transfer Pricing = 72,964,238.24

This is the result of calculation transfer pricing by using the new model of transfer pricing, which applied to the PT. Hanjaya Mandala Sampoerna Tbk, PT.Gudang Garam Tbk., PT.Bentoel Internasional Investama Tbk., PT. Indofood Sukses Makmur Tbk., and PT. Unilever Indonesia Tbk. within the period of 2015 till 2017.

Table 4.4 New Model Transfer Pricing Results
(*Expressed in millions of Rupiah)

Transfer Pricing	New Model		
	2015	2016	2017
HMSP	68,733,624	70,493,566	72,964,238
GGRM	56,890,471	58,684,869	63,395,919
RMBA	14,606,615	15,650,440	17,032,664
INDF	42,555,295	43,635,851	42,519,838
UNVR	9,604,566	9,709,619	9,933,532

Source: Reseacher data processed with Microsoft Excel 2013

4.1.5 Statistic Result

This study use standard deviation for determine the accuracy of existing models and new one proposed. According Lind D. A. et al. (2006)

Standard deviation is in the same units as the data, where the sample standard deviation is used as an estimator of the population standard deviation. Likewise, the sample standard deviation is the square root of the sample variance. The manually of Standard Deviation (σ) and Standard Error (S_E) formula as follow:

$$\sigma = \sqrt{\sum \frac{(X-\overline{X})^2}{n-1}}$$

Where:

σ is the standard deviation

X is the value of each observation in the sample

$\overline{X}$ is the mean of the sample, where $\overline{X} = \frac{\sum x}{n}$

n is the number of observations in the sample

$$S_E = \frac{\sigma}{\sqrt{n}}$$

Where:

SE is the standard error

σ is the standard deviation

n is the number of observations in the sample

But, this research calculate the standard deviation and standard error using Microsoft Excel, the format as follow:

Standard Deviation **"=STDEV(number1, [number2], …)"**

Standard Error **"=STDEV(number1, [number2], …) / SQRT(number)"**

The result for standard deviation (σ) of the transfer pricing model which are cost-based transfer prices and new model, is:

Table 4.5 Standard Deviation Test Results

Standard Deviation (σ)	Cost Based	New Model
HMSP	12.15%	0.65%
GGRM	5.10%	3.26%
RMBA	1.52%	1.10%
INDF	8.51%	3.61%
UNVR	3.33%	0.84%

Source: Reseacher data processed with Microsoft Excel 2013

The results show that transfer pricing model for the new one that proposed by author is more efficient and accurately, because we can see and compare that result with the cost-based transfer prices that based on the previous research. The standard deviation that calculated based on the new model is less than the standard deviation that based on the cost-based transfer prices.

And, the result for standard error (S_E) of the transfer pricing model which are cost-based transfer prices and new model, is:

Table 4.5 Standard Error Test Results

Standard Error (S_E)	Cost Based	New Model
HMSP	7.01%	0.37%
GGRM	2.94%	1.88%
RMBA	0.88%	0.64%
INDF	4.91%	2.08%

UNVR	1.92%	0.49%

Source: Reseacher data processed with Microsoft Excel 2013

The above results show that the standard error (S_E) of the transfer pricing model which proposed by the author is smaller than the old method, its proving that the new method is better and has a very small probability of error.

4.2 Implications

Theoritical benefits:

1. This research is expected to give new insight as it is the first research which combine actual cost replace with cost of goods sold, risk free, inflation, total expenses for the new model of transfer pricing. Based on the weaknesses of transfer pricing model as the guide for the new model, also comparing with the cost-based transfer prices to find the best fair value of the transfer pricing amount.
2. This research is expected to be used as reference for future research to gain clear understanding about transfer pricing models which are market-based, cost-based, and negotiated transfer prices.

Practical benefit:

1. This study is expected to remind the managers or regulators for paying attention about the transfer pricing method that company use. Using another measurement to calculate transfer pricing and setting more regulations that enhance the transfer pricing.

CHAPTER V

CONCLUSION, LIMITATIONS, AND SUGGESTIONS

5.1 Conclusion

The purpose of this research is finding any model of transfer pricing method who can describe whether the transfer pricing is still reasonable or not by comparing the old model with the proposed new one model. Transfer pricing is the amount of the price on the delivery of the goods or the rewards of the delivery of services agreed upon by both parties in a financial business transaction or other transaction.

There are three method of transfer pricing, such as market-based transfer prices, cost-based transfer prices, and negotiated transfer prices. In each method there is some weaknesses, for market-based which is the existence of the market itself of when it does not exist, or it may be imperfect; and the cost information may not exist or not available in detail for each division as the weaknesses of cost-based transfer prices; moreover, negotiated transfer prices for the process that take time may should be surveyed over and again as conditions change. (Hongren et al., 2005). Based on the weaknesses the researcher purposed the new model of transfer pricing, which equal to market price of product.

The results show that the cost-based transfer prices still has the same weaknesses according to the previous research, because it only take from

the internal trading between division A to another division, so the amount it not to be fair. And, the new model transfer pricing show that the result is better than cost-based model which more make sense. The new model proposed is proven to be the better performing compared to the previous model, more efficient, and accurately where using statistical calculations for verification the model by calculate standard deviation and standard error. The results of the new model are smaller than the old model, so for the future this model can be apply to the company as the alternative of calculate transfer pricing in their company.

5.2 Limitation

After conducting this research, the researcher has found several limitations as follows:

1. The research has scope limitation on time period which is just 3 years only from 2015-2017. The limitation of the time period and the difference can influence different result also.
2. The research only focus with 5 (five) samples as proof for the model which is the cigarette industry, foods and refreshment that listed in Indonesia Stock Exchange, which are PT Hanjaya Mandala Sampoerna Tbk., PT Gudang Garam Tbk., PT. Bentoel Internasional Investama Tbk., PT. Indofood Sukses Makmur Tbk., and PT. Unilever Indonesia Tbk.
3. The limitation of this research is the data is not sufficient and detail enough, because there is no access to the company which

as a sample for detailed annual reports that are not disclosed. The limitation of the data and the difference can influence different result also.

4. The research only use Microsoft Excel as the tools to process the data.

5.3 Recommendations

Based on findings from the research, the researcher would like to suggest several recommendation to related parties:

1. Company
    - One finding from this research is the new model of transfer pricing calculation that proposed by researcher, company can choose for applying this method of transfer pricing as the alternatif for get the best fair value of transfer pricing.
    - Having understanding of the whole transfer pricing model, will obviously increase the company decision to choose the best method of transfer pricing besides sticking out with the previous selected strategy.
2. Future Research
    - Future research is expected to have various kind of population and samples, for example LQ 45 companies, agriculture sector, mining sector or manufacturing sector,

etc., to get more accurate results for the transfer pricing model.

- Adding time period more than 3 years is expected give better explaining about the transfer pricing model especially the new model that researcher proposed.
- Future research is expected to do survey directly to the company and have someone as a connection to the company which want to be examined as a sample, so that you have access to request data in detail which not disclosed in the annual reports.
- Future research is expected to use other tools, besides Microsoft Excel to process the data such as SPSS, Eviews, etc.

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APPENDICES

1. Data for calculate Cost-based Transfer Prices

	HMSP		
	2015	**2016**	**2017**
Total Purchases (Related Parties)	13,433,198	14,741,004	12,535,643
Total Transportation Expenses	3,561,463	3,458,373	3,394,774
	GGRM		
	2015	**2016**	**2017**
Total Purchases (Related Parties)	228,343	229,765	233,547
Total Transportation Expenses	1,825,069	2,178,251	2,316,533
	RMBA		
	2015	**2016**	**2017**
Total Purchases (Related Parties)	486,276	323,605	879,877
Total Transportation Expenses	981,185	1,382,661	1,004,635
	INDF		
	2015	**2016**	**2017**
Total Purchases (Related Parties)	2,191,403	2,724,440	3,175,237
Total Transportation Expenses	2,102,123	2,386,005	2,059,497
	UNVR		
	2015	**2016**	**2017**
Total Purchases (Related Parties)	939,850	1,242,595	1,431,935
Total Transportation Expenses	5,876,706	6,229,048	6,151,599

2. Data for calculate New Model Transfer Prices

	HMSP		
	2015	**2016**	**2017**
Cost Of Goods Sold	67,304,917	71,611,981	74,875,642
Expected Return	9,355,383	6,824,622	6,267,091
Expenses	7,926,676	7,943,037	8,178,495
	GGRM		
	2015	**2016**	**2017**
Cost Of Goods Sold	54,879,962	59,657,431	65,084,263
Expected Return	7,628,315	5,685,353	5,447,553
Expenses	5,617,806	6,657,915	7,135,897

	RMBA		
	2015	**2016**	**2017**
Cost Of Goods Sold	15,098,989	17,107,950	18,160,853
Expected Return	2,098,759	1,630,388	1,520,063
Expenses	2,591,133	3,087,898	2,648,252
	INDF		
	2015	**2016**	**2017**
Cost Of Goods Sold	46,803,889	47,321,877	50,318,096
Expected Return	6,505,741	4,509,775	4,211,625
Expenses	10,754,335	8,195,801	12,009,883
	UNVR		
	2015	**2016**	**2017**
Cost Of Goods Sold	17,835,061	19,594,636	19,984,776
Expected Return	2,479,073	1,867,369	1,672,726
Expenses	10,709,568	11,752,386	11,723,970

3. Results for Cost-based and New Model Calculation

Transfer Pricing	**Cost Based (Full Cost)**		
	2015	**2016**	**2017**
HMSP	18,078,920	18,841,815	16,537,366
GGRM	2,184,420	2,493,019	2,647,238
RMBA	1,561,085	1,766,497	1,956,312
INDF	4,567,453	5,290,844	5,434,177
UNVR	7,251,452	7,735,392	7,872,467

Transfer Pricing	**New Model**		
	2015	**2016**	**2017**
HMSP	68,733,624	70,493,566	72,964,238
GGRM	56,890,471	58,684,869	63,395,919
RMBA	14,606,615	15,650,440	17,032,664
INDF	42,555,295	43,635,851	42,519,838
UNVR	9,604,566	9,709,619	9,933,532

4. Results for Standard Deviation and Standard Error Calculation

Standard Deviation	Cost Based	New Model
HMSP	12.15%	0.65%
GGRM	5.10%	3.26%
RMBA	1.52%	1.10%
HMSP	8.51%	3.61%
GGRM	3.33%	0.84%

Standard Error (SE)	Cost Based	New Model
HMSP	7.01%	0.37%
GGRM	2.94%	1.88%
RMBA	0.88%	0.64%
HMSP	4.91%	2.08%
GGRM	1.92%	0.49%