

**THE FRAMING EFFECT ON MANAGER'S JUDGMENT OF NEGOTIATED TRANSFER PRICING  
IN A TECHNOLOGICAL ERA****I Made Darsana**

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Email: [idarsana900@gmail.com](mailto:idarsana900@gmail.com)**ABSTRACT**

*Negotiation is a method commonly used by many companies in setting transfer prices (Ghosh, 2000). Self-serving bias makes the negotiating managers' expectations to set reasonable transfer prices to be at different points. When the market price is available and higher than COGS, the seller's expectations will be closer to the market price, while the buyer's expectation will be close to the price that gives the same advantage. This certainly affects the way they interpret the economic consequences of accounting information. This study examines the factors that may influence the manager's judgment in setting negotiated transfer pricing, namely the framing of information as a gain or loss. This research uses experimental design with 2X2 matrix between subjects. Students are chosen randomly to act as division managers both sellers and buyers, and are informed of positive frames (gains) and negative frames (loss). The results of this study indicate that information with a negative frame (loss) compared to a positive frame (gain), will aggravate the manager self-serving bias and increase the gap expectations of transfer prices between sellers and buyers. This result will be a positive implication on the role of management accountant as information provider for decision making in negotiating transfer price.*

*Keywords: Transfer pricing; Negotiations; Framing; Self-serving bias*

**1. INTRODUCTION**

Transfer pricing between divisions in a decentralized company, will affect profits and autonomy of each division and the company as a whole. Among the three transfer pricing methods (market price, the base boarding, and negotiation), negotiation is a method commonly used by many companies in setting transfer prices (Ghosh, 2000). Kachelmeier and Towry (2002) asserts that while the market price is available, negotiated transfer pricing remain in use. Negotiated transfer pricing could be used as a control mechanism (control management, particularly in a decentralized organization), and can provide a balance between economic and social considerations by the divisions involved in the negotiations.

In this study, the authors wanted to test whether the accounting information that is framed as gains and losses, affect the judgment division manager (either seller or buyer) that is negotiating the transfer price. Judgments about the accuracy of the transfer price which is owned manager in the negotiations, will directly affect the cost and outcome of the negotiations (Ghosh, 2000; Luft and Libby, 1997). This study contributes to extend of literature and practice in the field of management accounting, especially how accounting information will presented by accountant management, may affect the judgment of managers in decision-making, particularly in the negotiated transfer pricing.

Prior literature (Luft and Libby, 1997; and Kachelmeier and Towry, 2002) found that the transfer price will be affected by the attention Negotiation (concern) manager on justice (fairness) of the income distribution. They found that the seller and the buyer would put different weights on the second point of reference when formulating Negotiation transfer price judgment. When there is an external market price negotiated products, and the market price is greater than the price that would cause both divisions receive the same advantages, division seller would normally consider market prices as transfer prices fairer because it produces a higher profit for the division. However, buyers will see prices provide the same advantages for the two divisions as a fair transfer price. Differences estimate fair price of the negotiators, according to Chang et al. (2008) showed a self-serving bias (or egocentrism). Self-serving bias itself refers to the cognitive biases that arise from the tendency of individuals, to see the results in their favor, as a justice when resolving conflicts (Thompson and Loewenstein, 1992).

Chang et al. (2008) make the results of previous research conducted Luft and Libby (1997) and Kachelmeier and Towry (2002). They tested two factors (variables) associated with the framing effect to the judgment of the manager in the transfer pricing are: 1. Frame objectives adopted by the manager, which affects the way managers view the outcome of negotiations; and 2. The purpose of the negotiations held by the negotiating partners (social concern) that affects the way the manager felt his negotiating partners (concern-for-other). In this study, the author wishes to reexamine what is inferred by Chang et al. (2008) and purifying effect of framing purposes, by not using a variable-concern-for companies that allegedly can distort the purity of the framing effect.

In addition to contributing to expand and enrich the existing literature, this study also contributes to the management accounting practices. A management accountant who is responsible for providing accounting information for decision making either sell or buy products at a transfer price, may affect the judgment manager in the negotiation process transfer pricing through the information provided. This is similar to the proposed Chang et al. (2008) that the framing information carried in transfer pricing can be directly controlled by management accountants. For example, when market prices are used as a reference point, management accountants can inform potential for loss of profit due to the negotiated transfer price drops below market price (Perera et al., 2003; Nishiyama, 2016). This will drive the division manager sellers are negotiating to adopt a frame loss (negative frame). Conversely, if the reports using boarding products as a reference point, the focus gain as prices negotiated transfer moves over kos product (Colbert & Spicer, 1995). This causes sellers negotiate division manager will adopt a frame advantage (positive frame).

## **2. LITERATURE REVIEW**

### **2.1 Negotiated Transfer prices and Framing**

The transfer price is the price of a product or service that is transferred internally by centers of responsibility (division) in a decentralized company (Sugiri, 2009). Transfer price has an effect on profit division of the buyer and seller as well as the profits of the enterprise as a whole. In addition to its effect on income, transfer prices also had an impact on the autonomic division. When a company's earnings are affected, then the top management would be forced to intervene against the decision to buy from external parties or produce internally. Form of intervention is likely to reduce the autonomy of each division involved in the transfer price. To maintain the autonomy of existing divisions, the company does not specify how much money the magnitude of the price of the transfer, but rather establish policies (rules) that may reasonably be accepted by each division manager. One of the transfer pricing policies is negotiated transfer pricing.

Negotiation is a method commonly used by many companies in setting transfer prices (Ghosh, 2000). Kachelmeier and Towry (2002) stated that although the external market price is available, the transfer price negotiations could potentially be used as a control mechanism, as well as provide a balance between economic judgment and extensive social attention by independent divisions. Ghosh (1994) found that the transfer pricing method Negotiation generate higher corporate profits and managerial conflict smaller than the centralized transfer pricing method. Watson and Baumler (1975) states that the transfer pricing model Negotiation benefit the organization as a potential vehicle to integrate the objectives of the organization of the various divisions of interest, despite weakness may lead to distortion performance measurement functions negotiating power look more dominant than the performance-based economy.

Previous research has shown that transfer pricing is influenced by factors of economics as the market price of external and behavioral factors including justice (fairness) and framing (see Luft and Libby, 1997; Kachelmeier and Towry, 2002; Ghosh and Boldt 2006; Chang et al., 2008, Yoshino & Alekhina 2016). Conventional economics arguments suggest that the judgment of the transfer price should be based on economically rational expectations such as market prices, transactions and structures kos kos owned division (eg, Colbert and Spicer, 1995; Amelia, 2016). However, the psychological literature has shown that negotiators do not always act rationally, and has a number of biases in judgment, one of which can be caused by a framing whose effects are explained by prospect theory. Framing is a presentation of information that are substantially the same but in a

different frame (positive and negative frame). Prospect theory introduced by Kahneman and Tversky (1979) describes the effect of framing through the function value of an S-shaped illustrates that the decision maker is likely to be risk averse when conditions profit (positive frame), and a risk taker when a loss (negative frames) with level the same referent point.

Two accounting literature related to the framing of the transfer price negotiations indicate the framing effect to the judgment in the transfer pricing manager. Ghosh and Boldt (2006) conducted a study related to the framing of information as profits / profit made (positive frame) and sacrificed profit / profit foregone (negative frame) in the context of negotiated transfer pricing. They can prove that part of the profits obtained vending division manager will be greater when the information is framed negatively than positively framed. This can be explained by prospect theory which states that when a negatively framed information to someone, that person is more likely to be willing to sacrifice (risk seeking), so whatever will be sought not to lose profits. Specific research manager wants to test votes in a state of the transfer price negotiations conducted Chang et al. (2008). They tested two factors that are expected to affect the judgment of managers in negotiating the price of the transfer, namely, framing objectives as an advantage or a disadvantage (gains and losses), as well as the aim shared by negotiating partner (if the goal involves attention to high or low for others) , Here is said that the last two factors affect the perception of managers in the context of the negotiations, and thus have an effect on how they interpret the economic and social consequences of accounting information. From these two studies, it can be learned that the framing of interest (goal framing) can affect an individual's mental attitude in making decisions.

## **2.2 Hypothesis Development**

Luft and Libby (1997) have shown that during the negotiations the price of the transfer, the transfer price forecasts negotiation owned seller, tend to be significantly higher than the buyer, especially when the market price is higher than the price that gives the same profit. They suggest that their findings highlight the self-serving bias, which causes the manager assesses the outcome of negotiations over the most beneficial to them (Luft and Libby, 1997; Thompson and Loewenstein, 1992). Thus, when there is more than one definition of fair is between the two managers who negotiate the price of the transfer, the manager will interpret justice in ways that benefit their position, so that the transfer by the seller price forecasts are significantly higher than the estimated transfer price of the buyer. The following hypotheses hypotheses developed replicate Luft and Libby (1997) which shows the difference in judgment of transfer prices between sellers and buyers resulting from self-serving bias.

H1: The final transfer price estimation of the managers seller, will higher than the final transfer price estimation of the managers buyer.

In the context of the negotiations, for the division of the seller, the price of the transfer is part of the revenue, so that when the associated costs matched with revenue for the accounting period will affect its earnings. Prices tend to be close to or equal to the market price is the biggest revenue for them. They will frame the positive information that moves the price of the reference point kos products to the market price, because the perception is formed as a result of increased income gains, and negatively framed information prices move inversely. As for the division of the buyer, the price of the transfer is part of the boarding of products, so that when the boarding matched (after the product is sold) with revenues during the same accounting period, would affect profits. Prices tend to be close to or equal to the lowest kos kos is a product for them. They will frame the negative information that moves the price of the reference point kos products to the market price, because the perception is formed losses due to increased payments and a positive frame update prices move inversely. Under these conditions, it is understood that because of self-serving bias, managers who negotiate will have a perception of fairness (profit for each division) opposite. This of course led to the gap judgment of transfer prices that are owned by managers who negotiate.

In particular, the seller (buyer) with a negative frame is more likely to agree on a price higher (lower) to transfer a fair price, compared to the seller (buyer) with a frame advantage. Thus, the authors estimate that the negative frame will increase the self-serving bias owned negotiator. In addition, as a manager who framed negative, it

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would be more motivated to achieve better results, they will be willing to pay bargain larger than the manager who get a positive frame. Thus, the authors estimate that the transfer price judgment gap between buyers and sellers will be greater under frame loss than a positive frame conditions.

H2: The difference in estimates of final transfer price between buyers and sellers, will be smaller when the information given to managers who negotiate framed as a gain rather than a loss

**3. Research Methods**

This research was conducted using laboratory experimental design with 2 x 2 factorial design between subjects. The independent variables were manipulated, 2 division manager role is as a division manager sellers and buyers division manager, as well as two framing objectives: positive (profit) and negative (loss). Subjects who become participants in this study were 40 undergraduat students of accounting in the state university in Yogyakarta.

The instrument used in this study were adopted from existing cases in the study Luft and Libby (1997), Kachelmeier and Towry (2002) and Chang et al. (2008). In this study, participants were placed in two different roles at random. Participants were asked to perceive themselves as division manager PARTS (seller) and division manager ASSEMBLY (buyers) who are negotiating the transfer price of a component (part) generated PARTS division. As the two divisions are autonomous, they are free to decide will transact with internal parties (between the two divisions) or externally with a market price of \$ 70 per unit. In the experimental task schedule profit also included illustrations which implies the transfer price ranges for both parties (between \$ 20 / unit that caused no profit for the seller, as well as \$ 80 / unit that caused no profit for the buyer). Both divisions seller nor the buyer division, will be asked to predict the final price Negotiation transfer. In Figure 1 below illustrates the advantages provided schedules for each respondent.

**Figure 1:** Illustration of the schedule to the advantages provided for each respondent

Transfer price (per unit material)	80	75	70	65	60	55	50	45	40	35	30	25	20
PARTS profits (\$000)	60	55	50	45	40	35	30	25	20	15	10	5	0
ASSEMBLY profits (\$000)	0	5	10	15	20	25	30	35	40	45	50	55	60

A. Profit schedule for ASSEMBLY division that given profit frame information (positive)

Transfer Price (per unit material)	20	25	30	35	40	45	50	55	60	65	70	75	80
PARTS Profit (\$000)	0	5	10	15	20	25	30	35	40	45	50	55	60
ASSEMBLY Profit (\$000)	60	55	50	45	40	35	30	25	20	15	10	5	0

B. Profit schedule for ASSEMBLY division that given loss frame information (negative)

Manipulation is done on the role of the respondent in the negotiations, namely as a division manager PARTS (seller) and division manager ASSEMBLY (buyer). While framing manipulation purposes, is done through instructions given as a frame profit (positive) or frame loss (negative). In particular, the instructions given to the manager ASSEMBLY (buyer) by a positive frame is :

"As it can be seen in the table, a \$ 5 decline in the price of the transfer will bring in a profit of \$ 5,000 to your division. For example, through negotiations, the transfer price ditetapkanlah \$ 55. Your profit is \$ 25,000. But when you negotiate, and the transfer price is lower, say \$ 50, your profit is \$ 30,000. This means you make a

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profit of \$ 5,000. In other words, when you set a lower transfer price of \$ 5, you will benefit you lead a division of \$ 5,000 "

For participants with a frame loss, the information provided is that every change in the higher \$ 5 on transfer pricing, will make the division a loss of \$ 5,000. Each participant was also given a schedule frame advantage with profit increase or decrease in earnings as a change in transfer pricing (see figure 1 above).

The internal validity of this study is strengthened by conducting checks as well as the manipulation of the pilot test. Checks manipulation to condition the role of manager is done by giving the question whether the role of the participants in the negotiations earlier. Participants were asked to choose one answer: the role as division manager PARTS (seller) or a division manager ASSEMBLY (buyer). While the manipulation checks for the condition of the framing is to give the question is it true that "every \$ 5 increase in the price of the transfer, you will lose the benefit of \$ 5,000", or "\$ 5 decline in the price of the transfer, you will make a profit of \$ 5,000". Participants were asked to choose one answer is right or wrong. From the results of the check manipulations, all respondents had to answer two questions manipulation checks properly. While the pilot test is intended to provide a complete picture and gather feedback and suggestions for improvement, so that when the main experiment is done, errors and any shortcomings can be minimized. Pilot test in this experiment, conducted on 17 participants and is considered to represent the desire that research can continue at the stage of the main experiment.

### 4. RESULTS

#### 4.1 Analysis of Respondents

A total of 40 respondents were evenly split into four treatment conditions, each cell of 10 people randomly selected. Subject to the respondents, the authors conducted an analysis that includes gender, age, educational background, and work experience. Results of analysis of variance were conducted was no difference statistically significant between each treatment condition for gender ( $F = 0.001$ ;  $p > 0.970$ ) and work experience ( $F = 0.161$ ;  $p > 0.690$ ), while for ages (all under 23 years) and educational background (accounting studies) it was clear there was no difference between any of the treatment conditions. From these results, the authors believe that the respondents were randomly placed into each experimental condition, have correspondences (characteristics equivalent). It is important to ensure that the threats to internal validity that the selection has been controlled, so the researchers believe that the results are actually derived from the treatment / treatments are given.

#### 4.2 Hypothesis testing

To test the hypothesis 1 and hypothesis 2 authors test Analysis of Variance (ANOVA). Previously, test results show that the model ANOVA assumptions ANOVA has the same variance ( $F = 0.29$ ;  $p > 0.829$ ). Results shown in Table 1. which is descriptive statistics and Table 2. ANOVA test results are used to answer the hypothesis 1 and hypothesis 2.

<b>Table 1: Descriptive Statistics</b>				
Dependent Variable : Final Transfer Price				
ROLES	FRAME	Mean	<i>Std. Deviation</i>	N
SELLER	PROFIT	59.0000	5.16398	10
	LOSS	63.0000	4.83046	10
	Total	61.0000	5.28155	20
BUYER	PROFIT	57.5000	4.24918	10
	LOSS	55.0000	4.71405	10
	Total	56.2500	4.55233	20

Total	PROFIT	58.2500	4.66651	20
	LOSS	59.0000	6.19847	20
	Total	58.6250	5.42873	40

Table 2. ANOVA Test Result

*Tests of Between-Subjects Effects*

Dependent Variable: Final Transfer Price				
Source	Df	MS	F	Value P
Corrected Model	3	112.292	4.975	.005
Intercept	1	137475.625	6091.228	.000
ROLE	1	225.625	9.997	.003
FRAME	1	5.625	.249	.621
ROLE * FRAME	1	105.625	4.680	.037
Error	36	22.569		

As can be seen in Table 1, the transfer price estimasian seller (mean = 61; SD = 5.28) higher than the price the purchaser estimasian transfer (mean = 56.25; SD = 4.55). Estimasian transfer price difference between the seller and the buyer (see main effects of roles in Table 2), was statistically significant ( $F = 9.997$ ;  $p < 0.003$ ). These results indicate that the first hypothesis was supported.

Hypothesis 2 predicts that the price difference estimasian transfer between the seller and the buyer will be smaller when the potential outcome of the negotiations in a positive frame than negative. Results Table 1. Descriptive statistics showed that the price difference estimasian transfer between seller and buyer under conditions framed profit (positive) ie 1, 50 (59.00 to 57.50 = 1.50) to be lower than the price difference between the seller's transfer estimasian and buyer under conditions framed loss (negative) is 8.00 (from 63.00 to 55.00 = 8.00). The differences shown above, as shown in Table 2 as a significant interaction effect between the role and framing ( $F = 4.68$ ;  $p < 0.037$ ). Thus, these results indicate that the hypothesis 2 was supported.

## 5. DISCUSSION

This study examines the factors suspected to affect the judgment of managers who negotiate the transfer price that is framing information. In this study, the authors tested whether the accounting information that is framed as gains and losses, affect the judgment division manager (either seller or buyer) that is negotiating the transfer price. Judgments about the accuracy of the transfer price which is owned manager in the negotiations, will directly affect the cost and outcome of negotiations existence of self-serving bias led to expectations of managers who negotiate the transfer price is fair, will be at a different point. The seller's expectations will be closer to the market price, while the expectations of the buyer will be close to the price that gives the same profit (the results of testing of the hypothesis 1 to this conclusion). The results also showed that information with a negative frame (loss) compared with a positive frame (profit), would worsen the self-serving bias manager and increase the transfer price expectation gap between buyers and sellers (as indicated by the results of testing hypothesis 2).

These results will certainly have positive implications on the management accountant's role as a provider of information in the process of negotiating the transfer price. By understanding that the framing will affect judgment manager in the negotiation process transfer pricing, the management accountants who understand and provide accounting information for a decision to sell or buy products through transfer pricing, can determine the best information and in accordance with organizational objectives. Similarly for dinegosiasikannya other internal transactions that occur on a decentralized organization. For example the production manager may need to negotiate management, inventory and shipping policies with marketing managers, or other transactions. For example, when accountants management asked to provide accounting information for managers who will

negotiate, the information provided may be framing objectives with a specific purpose (eg, want the best price for one division, or the best price for the organization, or streamline the boarding negotiations).

## 6. CONCLUSION

As experimental research in general, this study must have a weakness in external validity or generalizability of research results. The conditions of the negotiations are not created as the original, can make the result of the respondents' judgment be biased. Further research can use design models can represent the condition of the actual negotiations.

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