THE EFFECT OF PROMOTION COST AND DISTRIBUTION COST ON COMPANY'S SALES OF THE FAST MOVING CONSUMER GOODS INDUSTRIES

Sinta Wardani
Ujang Sumarwan
Tb. Nur Ahmad Maulana
Institute of Agriculture Bogor
E-mail: sinta_wardani@yahoo.com; usumarwan@gmail.com; amet2001uk@yahoo.co.uk
MB-IPB Building, Pajajaran Street, Bogor 16151, West Java, Indonesia

ABSTRACT

The purposes of this study are (1) to analyze the effect of the promotion cost and distribution cost on company's sales partially and simultaneously (2) to formulate managerial implications related to the results of this study. Data was collected from 29 companies which separated into 18 foreign direct investments companies and 11 domestic investment's companies. Secondary data was gathered through consolidated financial statements' companies which listed on IDX for the 2007-2012 years ended. Data panel analysis fixed effect model was used to estimate the effects of promotion cost and distribution cost. Based on the FEM analysis, all independent variables of foreign direct investment and domestic investment companies has significant effect on their sales. The results of this study suggested for managerial implications to increase the efficiency of promotion cost and distribution cost.

Key words:Promotion Cost, Distribution Cost, Companies' Sales, Fixed Effect Models.

PENGARUH ANTARA BIAYA PROMOSI DAN BIAYA DISTRIBUSI TERHADAP NILAI PENJUALAN INDUSTRI BARANG KONSUMSI

ABSTRAK

Tujuan penelitian ini adalah untuk: (1) Menganalisis adanya pengaruh antara biaya promosi dan biaya distribusi terhadap nilai penjualan secara parsial maupun bersama-sama (2) memformulasikan implikasi managerial berdasarkan hasil penelitian. Data penelitian dikumpulkan dari 29 perusahaan yang terbagi menjadi 18 perusahaan penanaman modal asing dan 11 perusahaan penanaman modal dalam negeri kategori industri barang konsumsi. Data sekunder dikumpulkan melalui laporan tahunan perusahaan tahun 2007-2012 yang telah terdaftar di Bursa Efek Indonesia. Analisa panel data model efek tetap digunakan untuk mencari pengaruh biaya promosi dan biaya distribusi terhadap nilai penjualan perusahaan. Berdasarkan hasil analisis model efek tetap semua variabel bebas, pada perusahaan penanaman modal asing maupun perusahaan penanaman modal dalam negeri, memiliki pengaruh signifikan terhadap nilai penjualan. Hasil penelitian menyarankan untuk implikasi managerial agar perusahaan meningkatkan efisiensi dari biaya promosi dan biaya distribusi.

Kata Kunci: Promotion Cost, Distribution Cost, Companies' Sales, Fixed Effect Models.

INTRODUCTION

Fast moving consumer goods company is a part of a manufacturing company. The difference between manufacturing company with service company due to have production costs that used to produce goods. This production costs can determines the selling price of a product. The difference with other industries, the end consumers of fast moving consumer goods are scattered in various regions while the end consumers of manufacturing are usually the companies that concentrated in one specific area. In order for the products to be consumed by a variety of people, fast moving consumer goods companies need to sell products in affordable prices. Similarly, to achieve the end consumers, companies require promotion and advertising to introduce the company's products. The company also requires a good distribution channels as a means of channeling products to the consumer. Because of that, promotion costs and distribution costs are important elements for companies engaged in the manufacture of fast moving consumer goods.

It's the obligation of every company to build their managements oriented to the company's growth and development through exploiting the whole potential of the resources owned by the company. One of the potential resources is the financial capital resources. Under Indonesian law number 25 of 2007 section 1, it is stated the company can raise capital for business sustainability through two efforts such as portfolio investment and direct investment. Investment portfolio is an investment through capital market in Indonesia Stock Exchange with instruments securities such as stocks and bonds. While, direct investment is known by foreign direct investment and domestic investment, is a form of investment with the build, purchase or acquisition of the company's resources.

Portfolio investment can be done through the capital market in Indonesia Stock Exchange with securities instruments such as stocks and bonds. On the other hand,

direct investment is in the form of foreign direct investment (FDI) and domestic investment (DCI) that is a form of investment by building, buying or acquiring companies' total capital. According to the Chamber of Commerce and Industry (Kadin) Indonesia, in 2013 the company experienced a spike in the cost of production up to 20-25% (baristandpadang.kemenperin.go.id). This is caused by the rise in the price of plastics, fuel, and electricity tariff (TDL) and the provincial minimum wage (UMP). Every year, companies spend hundreds of millions and even billions of dollars for advertising and promotional expenses. The following is the data value of a print media ad spending during the last six years in Indonesia.

In the consumer goods industry, in particular, the value of ads spending on print media has increased every year over the last five years provided as seen in Table 1. Almost every consumer goods industry sub sector always increases ad spending on print media sub-sectors except cigarettes and accessories that actually decreased in 2009 and 2012. The decline in advertising spending on cigarettes is due to government sub sector through Minister of Health Regulation (Permenkes) number 28 in 2013 restricting the advertising, promotion, and sponsorship of cigarettes.

The value growth of national advertising spending to move in the range of 18-20 percent per year, especially in mass media ad spending continues to increase. The increase in advertising spending in Indonesia is the highest in Southeast Asia, followed by the Philippines (15 percent) and Singapore (10 percent). Also, the distribution cost in Indonesia is the highest, especially when compared to Malaysia. Logistics costs in Indonesia reached 17 percent of total costs, while only 8 percent of Malaysia, the Philippines is below 10 per cent while Singapore is only 6 percent.

Referring to the fact in Table 1, it can be questioned whether the cost of promotion and distribution incurred by such a large company has a significant effect on sales.

Table 1
Value of Print Media Ad Spending in the Consumer Goods Industry Subsectors over the Last 6 Years (Per Million Dollars)

Category	2007	2008	2009	2010	2011	2012
Food	95.905	108.463	134.805	171.376	181.332	190.010
Beverages	277.135	350.900	397.531	497.567	478.970	504.993
Smoking & Accessories	177.247	184.984	176.033	202.985	228.681	197.699
Medicines/Pharmaceuticals	293.807	325.854	552.315	744.468	970.525	840.384
Toiletries & Cosmetics	252.456	289.744	354.365	322.317	360.565	361.642
Household Equipment & Appliances	614.692	718.825	691.546	983.687	1.185.002	1.458.942

Source: Nielsen Indonesia.

There have been many studies that seek the effect of promotion and distribution costs on total sales. This studies conducted in Indonesia are mostly just case studies that examines and rarely an industry based on secondary data. Has done a lot of research on various consumer goods industry in various countries but to date the authors have not found a specific study divides the industry by foreign investment companies and investment companies in the country. Similarly, various studies have conflicting results although the independent and dependent variables under those studies have similarities.

In a study by Abdel - Khalik (1975) in Banerjee, Siddhanta and Bandopadhyay (2012), found that the ads have long-term impact on sales in the categories of industries of food, pharmaceuticals, and cosmetics. They have short-term impact on the automotive categories, cigarette, soaps and cleaners. Abiodun (2011) attempted to find out the impact of advertising on sales and profits of a business organization Starcomms Plc. The findings revealed that a strong advertising position in the minds of consumers having influence in order to encourage repeat purchase products, so competitors will not have the advantage over them and create brand loyalty and product differentiation. However, the research by Tellis and Weiss (1995) about the influence of television advertising on sales, provides evidence that the discovery has no a significant influence.

The next is the study by Simester, Hu, Brynjolfsson, and Anderson (2005) found that advertising affects sales in the future, but the sign a different effect on each of the targeted consumers. At the company's customers, increase in advertising it is negative in the long run it while on the ordinary consumer is positive. Indrawati (2000) suggested that research results either partially or simultaneously, the variable cost of sales, cost of transportation and warehousing costs a positive effect on sales volume. A result of the same study was also reported by Raya (2009) that there is a very strong relationship, a positive and on the same direction of relationship between the cost of distribution and sales.

The result of a similar study was also found by Mukodim (2007) that the costs of promotion and distribution are very influential on sales. Yet, only the cost of the promotion that has a higher effect on the cost of distribution. Similarly, in a study conducted Hernomo (2012), it was found that the cost of promotion and distribution simultaneously can affect the volume of sales promotion but only the cost has significant results.

Based on the evidences above, this study has attempts as the following:
1. To analyze the effect of the cost of promotion on the company's sales value in the foreign investment and domestic investment companies.

2. To analyze the effect of distribution costs on sales of foreign investment and domestic investment companies.

3. To analyze simultaneously the effect of promotion and distribution costs on the value of the company's sales of foreign investment and domestic investment.

RESEARCH METHOD

This study took public companies as the objects included in the category of foreign investment enterprises and domestic investment in the consumer goods industry and listed on the Stock Exchange prior to the period of 2006. The number of samples included in the criteria for the study was 29 companies consisting of 18 foreign investment companies and 11 investment companies in the country.

These data are secondary data from the company's annual report for six years i.e. 2007-2012. Secondary data is data collected by others for different purposes with the objectives of the research are formulated (Sumarwan, Prihartono, Sumarlin, Mamahit, Purnomohadi, Hasan, Ahmady, Wulandari, Haryono 2011). The operational definitions of variables studied include as the following.

1. Promotion costs (X1) which consists of the cost of sales promotion and advertising costs in rupiah.
2. Distribution costs (X2) consists of or not limited to the elements of cost of sales cost of packaging and shipping and warehousing costs in rupiah.
3. Sales of the company (Y) is the total amount generated from the sale of goods that signaled the rise and fall of sales in the form of units, pounds, tons or liters and is expressed in units in rupiah.

Methods and Data Analysis

To estimate the parameters of the model with panel data, there are several techniques that can be used (Gujarati 2006):

1. Pooled least square is an estimation model of panel data regression model with the simplest assumption that the intercept and the slope coefficient is constant across time and between sections.
2. Fixed effects model is a model that can be used by considering that the omitted variables can lead to changes in the intercepts between sections and between times? To enable these changes can be added intercept dummy variables into the model.
3. Random effects model. In the fixed effect model, the decision to include dummy variables into the model will result in a reduced number of degrees of freedom; to overcome this we used a random effects model.

Selection of the Models

It is important in this process to obtain an efficient model and alleged most excellent among a wide selection of models that need to be analyzed based on statistical considerations (Gujarati 2006). There are several statistical tests used in the panel data to determine which model is best for them are chosen:

1. Chow test is a statistical test which aims to choose whether it is better to use the PLS models or FEM.
2. Hausmann test. In choosing the model use FEM or REM models Hausmann test method can be used as a basis for testing statistical considerations.
3. Langrange Multiplier test is used as a basic consideration in choosing statistic REM and PLS models.

Testing the Models

In testing the models, each model is analyzed to test the hypothesis. The model used in this study is based on a review of the influence of the theory of the cost of promotion and distribution towards the value of the company's sales. The variables in this study are different scales of values between the minimum value and the maximum value. The transformation in the form of Ln can reduce the problem heterocedastisity. This is because the transformation for the scale of the measurement of variables, by reducing

the difference in the value of a ten -fold to two -fold (Gujarati 2006).

Model relationship with these variables or functions can be arranged in the following equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon. \qquad (1)$$

In which:
Y = value of the sale
X1 = promotion cost
X2 = distribution cost
α = constant
β = regression coefficient
ε = residual value

Research Hypothesis

Hypothesis testing is useful for testing the regression coefficient whether it has a significant effect or not. In accordance with the variables to be studied, the hypotheses that will be proposed in this study are as follows.

t test

This test is used to determine whether the independent variables are partially to have a significant effect on the dependent variables.

Hypothesis Formulation:
1. Partial Testing of the hypothesis.
H01: $\beta_1 = 0$ means that the variable promotion cost (X1) has no significant effect on the value of the company's sales.
Ha1: $\beta_1 \neq 0$ means that the variable promotion cost (X1) significantly affects the value of the company's sales.
H02: $\beta_2 = 0$ means that the variable distribution cost(X2) has no significant effect on the value of the company's sales.
Ha2: $\beta_2 \neq 0$ means that the variable distribution cost (X2) significantly affects the value of the company's sales.

The instrument of the test is used to reject or accept the hypothesis by looking at the probability value of each independent variable of the best model chosen (PLS, FEM or REM), when the probability value is less than 5 percent, the significance level of independent variables are proved to be significant towards the dependent variable.

Test F

F test is used to assess all independent simultaneously towards the effect on the dependent variable.

Hypothesis formulation

H03: β_1, $\beta_2 = 0$ means there is no variable of promotion cost and distribution cost that affect the company's sales value.
Ha3: At least there is a β_1, 2 $\neq 0$ means there is at least one variable costs of promotion and distribution costs significantly influence the company's sales value.

The test instrument is used to reject or accept the hypothesis by looking at the probability value (F-statistic) of the best model chosen (PLS, FEM or REM), when the probability value (F-statistic) is less than 5 percent the dependent variables are proved to be significant on simultaneously toward the dependent variable.

Double Determination (R2)

Furthermore, from the calculation of the regression coefficient of determination will double (R^2) which is used to measure the level of accuracy of the best regression models being used. For example, when R^2 is obtained close to 1, it means the more powerful the model in explaining the variation in the independent variable on the dependent variable or vice versa. When R^2 is obtained close to 0, it means the weaker model in explaining the variation in the independent variable on the dependent variable.

Classical Test Assumptions

1. The normality test aims to test the normality of data dependent and independent variables in the regression model have a normal distribution or not (Ghozali 2001).
2. The test of multicollinearity aims to test whether the regression model found a correlation between the independent variables.
3. Heterocedastisity test aims to test

Table 2
Estimation Results Using PLS, FEM, and REM Method for Foreign Direct Investment Company

	Pooled Least Square	Fixed Effect Model	Random Effect Model
Coefficient		9.872746	10.09198
LN_PROMOSI	-0.069465	0.264370	0.251806
LN_DISTRIBUSI	1.201631	0.469167	0.472793
Prob			
LN_PROMOSI	0.5012	**0.0000***	0.0000
LN_DISTRIBUSI	0.0000	**0.0000***	0.0000
R-squared	0.535745	0.991973	0.653437
Adjusted R-squared	0.531365	0.990239	0.646836
F-statistic		572.3405	98.98775
Prob(F-statistic)		0.000000	0.000000
Durbin-Watson stat	0.055632	1.308889	1.087780

Note: The independent variable on the dependent variable proved significant in the real level 0.05.

Table 3
Results of Chow and Hausman Tests

	Chow Test	Hausman Test
Prob. Cross-section F	**0.0000**	
Cross-section Chi-square	**0.0000**	**0.5571**
d.f. Cross-section F	(17.88)	
Cross-section Chi-square	17	2
Chi-Sq. Statistic		1.1701

whether the regression model residual variance inequality occurs from one observation to another observation.

4. The autocorrelation test is the correlation between members of a series of observations which are sorted by time as in the data over time or sorted according to the data space as the inter- section.

DATA ANALYSIS AND DISCUSSION
The result of estimation and discussion was divided into three general expositions. Firstly, the selection of the best model among the model approaches of pooled least squares, fixed effects model, and random effects model. Secondly, it is the outline of the results of an econometric test which consists of test for normality, multicollinearity, and heterocedastisity. The third part is the interpretation of exposure effect models promotional costs, and distribution costs to total sales.

Foreign Direct Investment Company
Stages of the Model Selection of the Best Approaches
Estimated cost models determine the effect of promotion and distribution costs on sales value of a foreign investment company. This is done by using a panel data analysis, can be performed through three approaches estimation model which is model of pooled least squares, fixed effects model and random effects model. In Table 2, it presents the results of calculations based on the PLS table, FEM, and REM.

To get accurate results of the approach election, it is first tested whether PLS or FEM approach being used, based on the results of the Chow test. Table 3 shows that the results of the Chow test with the F - test and chi - square was significantly (F - stat prob value of 0.0000) smaller than the significance level α = 5 percent. This result means that the FEM is better than PLS with

Table 4
Estimation Results Using PLS Method, FEM and REM for Domestic Investment
Companies in the Consumer Goods Industry

	Pooled Least Square	Fixed Effect Model	Random Effect Model
Coefficient		4.573494	4.492853
LN_PROMOSI	0.223577	0.173607	0.174397
LN_DISTRIBUSI	0.907818	0.775353	0.777790
Prob			
LN_PROMOSI	0.0014	**0.0004***	0.00020
LN_DISTRIBUSI	0.0000	**0.0000***	0.00007
R-squared	0.831212	0.996051	0.890233
Adjusted R-squared	0.828575	0.995157	0.886749
F-statistic		1114.002	255.4724
Prob(F-statistic)		0.000000	0.000000
Durbin-Watson stat	0.044551	1.422101	1.239164

Note: The independent variable on the dependent variable proved significant in the real level of 0.05.

95 percent confidence level. Yet, the results of the Hausman test with prob 0.5571 greater value when compared to the significance level of 5 percent.

The results suggest that REM is better than FEM with a 95 percent confidence level. However, with the R - squared value of 99.1973 percent, FEM felt better in this study because it is able to predict the FEM model fit to almost 100 percent. Also in the FEM, this can determine the value of the constant is different for each company that describes the different characteristics of each company.

From the results of Table 2, the obtained regression equation for Foreign Investment Company is as follows.
Y = 9.872746 + 0.264370 + Promotion Cost + 0.469167 Distribution Cost.

From the original form of regression model above, the efficiency index of the value of sales at the company's foreign investment is equal to the intercept coefficient α = 9.872746. Multiple linear regression models are seen in the impact taken simultaneously cost of promotion and distribution on the sale. Valued 9.872746 mean that if the variable cost of promotion and distribution costs constant (no increase or decrease) the company's sales will increase by 9.872746 percent.

After the selection of panel regression approach, the F - stat test is done to see if the independent variables are simultaneously significantly affecting the dependent variable. As in Table 2, it is the value of Prob (F - stat) FEM generated is 0.0000, with a confidence level of 95 percent significant P-value (0.0000 < 0.05), which means it does not reject Ha3. Thus, it can be said that the 95 percent of significance level for independent variable such as promotion costs and distribution cost simultaneously have significant effect on the value of the company's sales.

Domestic Investment Company
The next is the analysis of the company's investment in the country by testing pooled least squares, fixed effect model, and random effect model. Table 4 shows the results of calculations based on PLS, FEM and REM on each variable promotion cost and distribution costs.

To get more accurate results regarding the election approaches, it is first tested whether PLS or FEM approach that will be used based on the results of the Chow test. Here are presented the results of the Chow test and Hausmann test in Table 5. As in Table 5, it shows the results of the Chow test well with the F - test and chi - square which is significant (prob value of 0.0000). This is smaller when compared to the significance

Table 5
Chow Test Results and Test Hausmann Chow Test of Hausman Test

	Chow Test	Hausman Test
Prob. Cross-section F	**0.0000**	
Cross-section Chi-square	**0.0000**	**0.9699**
d.f. Cross-section F	(10.53)	
Cross-section Chi-square	10	2
Chi-Sq. Statistic		0.061219

Table 6
Testing the Assumptions of Classical Test against Foreign Investment and Domestic Investment Companies

Assumption Test	Foreign Investment	Domestic Investment	Results
Normality Test	0.254	0.874	Data distributed normally
Multicollinearity Test	VIF = 5.068 Tolerance = 0.197	VIF = 2.099 Tolerance = 0.476	Data has no multicollinearity symptom
Heterocedastisity Test	Promotion= 0.525 Distribution= 0.858	Promotion= 0.924 Distribution= 0.976	Data free from heterocedastisity
Autocorrelation test	2.099	2.075	No Autocorrelation

level α = 5 percent. Thus, FEM is better when compared with PLS with 95 percent confidence level.

The Hausman test result, it gained 0.9699 prob value which is greater than α significance level of 5 percent. This evidence suggests that REM is better than FEM with a 95 percent confidence level. In the event of conflicting results such as this, to decide which should be the best model selected, it can be seen through the R - squared with the largest models. From table 4 known through that the R - squared of the FEM method is bigger thus to be preferred.

From Table 4, the obtained regression equation is as follows.
Y = 4.573494 + 0.173607 promotion cost + 0.775353 distribution costs.

The original form of regression model above shows that the efficiency index of the value of sales at the company's domestic investment is equal to the intercept coefficient α = 4.573494. Multiple linear regression models found the impact taken together variable cost of promotion and distribution costs on the sale. Valued at 4.573494 means that if the variable cost of promotion, and distribution costs constant (no increase or decrease) the company's

sales will increase by 4.573494 percent.

The next step is looking at the value of Prob (F - stat) to see if the independent variables simultaneously significantly affect the dependent variable. Table 4 looks at the value of Prob (F - stat) FEM generated is 0.0000, with the confidence level of 95 percent significant P-value (0.0000 < 0.05) which means that the independent variables together proved to significantly affect dependent variables simultaneously (Ha3 not rejected).

Classical Assumption Test against Foreign Investment and Domestic Investment Company
However, in order to meets the criteria of the BLUE (best linear unbiased estimator) classic assumption test should be done to foreign investment and domestic investment company. These tests include normality test, heteroscedascity test, multicollinearity test and autocorrelation test.

Based on normality test of kolmogorov smirnov in Table 6 found that the value is greater than α=5% then it can be said that the data is distributed normally. Based on the calculation of multicollinearity test using SPSS to foreign direct company, the VIF is

5.068 and tolerance is 0.197. The VIF value for domestic company is 2.099 and tolerance is 0.476. All the results showed that the values of VIF is still less than 10 and tolerance greater than 0.1, therefore there is no correlation between independent variables in this regression model. In other word there is no multicollinearity in the regression model. To test for multicollinearity also can be done by looking at the value of coefficient independent variables that have values above 0.8 indicates multicollinearity. Heterocedastisity test results can be seen in the level of significance of the Spearman rank correlation coefficient. Can be said to be free from need heterocedacity value greater than 0.05, it can be said that the regression equation in this study is free of heterocedastisity.

Through table durbin-watson noted that the value of DW of foreign company (1.308889) is between value 0, (dl) 1.6297 and (dU) 1.7437 (significance value of 5 percent, the number of samples is 108 and the number of independent variables is 2) there is a proven means of autocorrelation. To overcome these transformations can be performed by a general distinction method (Generalized Differences). Once it was transformed, and then it performed the Durbin - Watson test back. The value of the Durbin -Watson test results of 2.099 common distinctions is then compared back to the Durbin - Watson value table that is between the lower limit (dl) 2 and the upper limit (dU) 2.2759 which means there is no autocorrelation. Similarly, the domestic firm, the Durbin - Watson value 1.422101 is between value 0, dl = 1.5305 and = dU 1.6640 (5 percent significance value, the number of samples 66 and the number of independent variables 2) there is a proven means of autocorrelation. Once transformed, and then performed the Durbin - Watson test back, the value of the Durbin -Watson test results of 2.075 common distinctions is then compared back to the Durbin - Watson value table that is between the lower limit (dl) 2 and the upper limit (dU) 2,336 proven there is no autocorrelation.

Interpretation of Model Effects of the Respective Foreign Investment and Domestic Investment Companies

Based on the results of the analysis of FEM model on foreign direct investment companies, the value prob of each independent variable on table 2, variable promotion costs have a probability of 0.0000 which less than $\alpha=0.05$ (5%). This means, the variable promotion costs have a significant effect on the companies' sales. Thus the first partial hypothesis which stated that the promotion costs affect the sales is not rejected (H_{a1} not rejected). The same results happen in domestic investment companies, according to Table 4; it is evident that the independent variable promotion cost does affect the volume sales. It can be seen from the value prob of promotion costs 0.0004 that greater than $\alpha=0.05$. Thus the first partial hypothesis which stated that the promotion costs affect the companies' sales is not rejected (H_{a1} not rejected).

The results above are still consistent with several studies which reveal that the variables affect the company's sales promotion. Some research suggests that the results of the sales promotion costs affect the company including the research conducted by Simester, Hu, Brynjolfsson and Anderson (2005), Abdel - Khalik (1975) in Banerjee, Siddhanta and Bandopadhyay (2012) and Abiodun (2011). In addition, the research Frankenberger and Graham (2004) who studied the effects of advertising and promotional spending during a recession by using cross- sectional time series regression with the a sample of 2,662 companies. It found that the increase in advertising and promotional spending during the recession led to a higher profit than doing it during non - recession.

Balaghar, Majidazar and Niromand (2012) from Iran who conducted a study to evaluate the effectiveness of promotional items for advertising, sales promotion, public relations, direct sales and direct marketing on the volume of product sales companies in Iran. It was found that there is a significant relationship between the

volume of sales and promotional equipment. In addition, the results also showed that the most effective tool is a sales promotion, advertising, and public relations is ranked third, fourth is a direct marketing and the latter is a direct selling.

Based on the results of the analysis of FEM model on foreign direct investment companies, the value prob of each independent variable on table 2, variable distribution cost have a probability of 0.0000 which less than $\alpha=0.05$ (5%). This means, the variable distribution costs have a significant effect on the companies' sales. Thus the second partial hypothesis which stated that the distribution costs affect the sales is not rejected (H_{a2} not rejected). Either in domestic investment companies, according to Table 4, it is evident that the independent variable distribution cost affect volume sales. It can be seen from the value prob of production costs 0.0000 that less than $\alpha=0.05$. Thus the second partial hypothesis which stated that the distribution cost affect the companies' sales are not rejected (H_{a2} not rejected). In Table 4 it can be seen free of charge distribution of variable capital investment company in the country (DCI) also affect the sales volume. This can be seen in the value of the cost of distribution 0.0000 smaller than 5 percent significance level. The results are consistent with several previous studies on the relationship of the distribution of the company's sales are Indrawati (2000), Mukodim (2007) and Raya (2009). In addition the above evidence, the study by Karim (2012) related to the effect of cost distribution channel on sales volume, found that the cost of distribution channels has a positive effect. Nasri (2010) also conducted research on the effect of distribution costs to sales volume tilapia or carp in fish ponds in the river Epi Mr. Lais. The method of data collection is done by noting that in the form of case studies, and the data used in the study is primary data which includes the cost of distribution and sales of 2004 to 2008. Based on calculations using simple linear regression method results obtained charge distribution has positive influence on the sales of the business Mr. Epi fish rearing ponds are located on the river.

Managerial Implications
Based on the results of the fixed effect model's calculation of foreign direct investment and domestic investment companies, namely the independent variables promotion costs and distribution costs are affecting significantly to the companies' sales. The FEM calculations on domestic and foreign companies showed that the value of coefficient is positive, which means the promotion cost and distribution cost positive effect on the value of company's sales. Thus, the domestic and foreign companies, in the event of an increase in promotional costs can increase the value of the company's sales. However, the coefficient value of independent variables for both companies proved to be less than one so it can be said that inefficient. Because of that, what must be done is not maximization promotion costs and distribution costs but the optimization all of it. A good promotion costs and distribution costs optimization can make the costs burden to a minimum and affect the output value produced by the companies. The company should conduct a comprehensive evaluation program of production, promotion and distribution so that the weaknesses and shortcomings in the implementation of the program can be known early.

To overcome this problem, the company can promote a strategy in times of recession rather than stopping overall campaign. There are several ways to advertise, with the hope to continued raise awareness to customers but still remain economize. The companies don't have to stop advertising as a whole, it is better to reduce the ads impressions in the media-print and television to maintain what has been obtained by the companies. If the companies are using several different advertising executions that aired at the same time, just reduce it until just one ads thing. The companies may consider 15-seconds-

advertising as the occupational force to maintain the mental area that has been obtained. Similarly, distribution costs optimization can make the burden of costs to a minimum and therefore can affect the output produced by the company. Because the distribution system involving many parties that are scattered in various areas, the less exact distribution system can increase distribution cost's companies. Therefore, it is better if the companies use the concept of decentralization for their distribution system. However, the decentralization system may threaten the establishment of optimization overall. Decentralization tends to pursue the achievement of sub-organizations' purposes at the expense of the organization's objectives as a whole. To that end, organizing of the distribution system should be done by combining the concept of centralization and decentralization. Organizing for centralization means that handling system inventories, warehousing, and transportation should be under the control of one business unit, so that the integration of the three systems can be achieved to the maximum and overall companies' objectives can be achieved better.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

In general, by FEM method it shows that the promotion costs and distribution costs partially have a positive effect on the company's sales both in domestic and foreign companies. Similarly, simultaneously, it suggests that there is a positive effect of independent variables on the dependent variable that is on domestic and foreign companies. In order that the company can increase sales, they should pay attention to promotional expenses policy and distribution costs in marketing its products to consumers. Company should retain promotion and distribution policies that have executable, but by taking action in order to save even more efficient company.

The limitation of this study is that the number of observations and the analysis period is relatively less than the expected number. There must be more research that accommodates other independent variables to get a more complete understanding of the sales performance. The researchers also suggest to add more variables to describe the research that the company's sales performance more broadly and comprehensively.

REFERENCES

Abiodun AO 2011, 'The Impact of Advertising on Sales Volume of a Product: A Case Study of Stardoms Plc', Nigeria, Valkeakoski (NG): University of Applied Science Pr.

Balaghar AA, Majidazar M, Niromand M 2012, 'Evaluation of Effectiveness of Sales Promotional Tools on Sales Volume (Case Study: Iran Tractor Manufacturing Complex (ITMC)', *Middle-East J Sci Res*, 11 (4).

Banerjee N, Somroop S, Gautam B 2012, 'The Effect of Marketing Communication on Sales Performance – A Study on the Personal Care Industry in India', *European J Soc Sci*, 28(3).

Frankenberger KD, Graham RC 2004, 'Should Firms Increase Advertising Expenditures during Recessions?', *MSI Reports*, 03(115).

Ghozali, I 2001, *Aplikasi Analisis Multivariate dengan program SPSS*, Semarang (ID): Diponegoro Univ Pr.

Gujarati, D 2006, *Dasar-Dasar Ekonometrika*, Jakarta (ID): Erlangga.

Hernomo AD 2012, 'Pengaruh Biaya Promosi dan Biaya Distribusi terhadap Volume Penjualan permen tolak angin pada PT. Muncul Mekar Semarang', *J Ilmu Adm Bisnis*, 12(6).

Indrawati, 2000, 'Analisis Pengaruh Biaya Distribusi terhadap Volume Penjualan pada CV Mekar Sejahtera Abadi Semarang', *Post Graduate Thesis*, Semarang (ID): Diponegoro Univ.

Karim A 2012, 'Pengaruh Biaya Saluran Distribusi Terhadap Volume Penjualan Krupuk Kelempang "Dahliah" 1 Ulu Darat Palembang', *ILMIAH*, 4(2).

Mukodim D 2007, 'Pengaruh Biaya Promosi dan Biaya Distribusi terhadap Penjualan pada PT Indofood Sukses Makmur, Tbk. *PESAT*, 2(9).

Nasri, 2010, 'Pengaruh Biaya Distribusi terhadap Volume Penjualan ikan nila atau gurami pada kolam ikan Pak Epi di sungai Lais', *ILMIAH*, 3(1).

Nielsen Indonesia, 2013, *Advertising Spending by category-Print Media*, Jakarta (ID): Nielsen Indonesia.

Pemerintah Republik Indonesia, 2007, *Undang-Undang Republik Indonesia Nomor 25 tahun 2007 tentang Penanaman Modal*, Jakarta (ID): Sekretariat Negara.

Raya MFSA 2009, 'Pengaruh Biaya Distribusi terhadap Hasil Penjualan Produk PT Sesional Suplies Indonesia', <http://www.gunadarma.ac.id/library/articles/graduate/economy/2009/Artikel_10205761.pdf>, viewed 24 June 2013.

Simester D, Hu Y, Brynjolfsson E, Anderson ET 2006, 'Does Current Advertising Cause Future Sales? Evidence from Direct Mail Industry', *MIT Sloan School Man*, 222(1).

Sumarwan U, Prihartono AG, Sumarlin AW, Mamahit DA, Purnomohadi E, Hasan J, Ahmady M, Wulandari R, Haryono T 2011, *Riset Pemasaran dan Konsumen*, Bogor (ID): IPB Press Pr.

Tellis GJ, Weiss DL 1995, 'Does TV advertising really affect sales? The role of measures, models and data aggregation', *J Advertising*, 24(3).

<http://baristandpadang.kemenperin.go.id/news30-biaya-produksi-industri-naik-25.html>.