# Analysis of Tobacco Control With Semi-Strong Market Theory for **Forecasting in the Future**

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Abstract:

Tobacco control policies are analysed as information that gives a signal to the market, particularly those with close affiliations to the tobacco industry. The existence of the cigarette industry has increasingly become a dilemma. It is undeniable that the tobacco industry has consistently contributed a substantial portion to the Indonesian State Budget from year to year, around Rp 40 trillion for 2007, coupled with the absorption of a lot of labour. However, the fact that tobacco products are harmful and have a negative impact on health, being the cause of 5 million deaths per year, makes the world unable to turn a blind eye. Responding to the problem, the WHO in 1999 initiated the Framework Convention of Tobacco Control (FCTC), which is an international agreement on the regulation and control of tobacco for its member countries. However, Indonesia is one of the largest cigarette producing and consuming countries in the world. The purpose in this study is to prove the theory of the semistrong efficient market where securities

and prices reflect the relevant content of the information that is available.

## INTRODUCTION

The economic and social costs incurred by tobacco consumption continue to increase and this burden is largely borne by the poor. In Indonesia, cigarette consumption in 2008 reached 240 billion cigarettes or about 658 million cigarettes per day. This indicates money around Rp 330 billion burned or spent to consume cigarettes in Indonesia in a day. According to WHO data, Indonesia is the third country with the largest number of smokers in the world after China and India. The increased consumption of cigarettes has an impact on the higher burden of smoking diseases and increased mortality from smoking.

The existence of advertising, promotion and sponsorship of cigarettes has triggered a dramatic rise in the number of child and adolescent smokers. The cigarette industry in Indonesia has almost full freedom of promoting its products in various ways. This is very contrary to other countries that actually protect children from the dangers of smoking (TCSC-IAKMI).

The smoking prevalence in Indonesia is very high in all walks of life, especially in men ranging all the way from children, through adolescents to adults. The trend of smoking continues to increase from year to year. This condition is very worrying. The National Socio-Economic Survey (Susenas) and Riskesdas data shows that the smoking prevalence for all age groups is experiencing a surge. Based on the Susenas data from 1995, 2001 and 2004 and the Riskesdas data for 2007 and 2010, the prevalence of smokers is 16 times higher in men (65.8%) than in women (4.2%). Nearly 80% of smokers start smoking before their age has reached 19 years. Generally people start smoking when young and do not know the risks regarding the addictive hazards of cigarettes. The consumer's decision to buy cigarettes is based on a lack of sufficient information about the risks of purchased products, the addictive effects and the impact of their purchases being charged to others.

The addictive behaviour of smoking in Indonesia is similar to drinking alcohol in Indonesia. According to foreign sources, the industrial stocks of alcohol and tobacco are opposed to ethically and socially responsible investments. The issues to do with corporate ethics, and in particular the health aspects of the sector, are still frequently debated.

### 2 METHODS

This writing has used the method of event study with an emphasis on the market's reaction to an event. The data used in this paper is secondary data. The data collected includes the names of the listed issuers that are tobacco companies during the observation period, daily stock market prices during the observation period, and the daily composite stock price index during the period of observation. The data collection techniques used in this paper are literature studies focused on events with secondary data collection to do with tobacco control policies in Indonesia and stock return movements from published prices on the IDX and what can be accessed through the Yahoo Finance website.

# 3 RESULTS

In this paper, the authors tested the reaction of abnormal return during an event adapted from MacKinlay (1997), where the abnormal return calculates each issuer's shares before and after the date of cash dividend announcement. The data obtained was from other historical reports on the IDX period 1992 to 2004. The object of this study is the market reaction in terms of the absence of an abnormal return around the announcement date caused by the information absorbed by investors from the stock dividend policy announcement resulting in a change in the stock prices.

Table 1: Description of abnormal return data

Description of Abnormal Return Data					
	N	Minimum	Maximum	Mean	Std. Deviat ion
Before	39	849	.168	03269	.15264 5
After	39	150	.420	.03197	.13030 4
Valid N (listwis e)					

The market reaction is proxied with an abnormal return. The market is said to react if there is a different abnormal return before and after the announcement of stock dividend that can cause changes in the stock prices significantly.

### 4 DISCUSSIONS

In the above results, it can be said that the absence of significant differences in the abnormal return before and after the stock dividend announcement shows that there is no market reaction due to stock dividend announcement events. When an announcement event contains information, it causes an abnormal return change around the dividend announcement (Ardiana and Nita, 2014).

This study is not in accordance with the signalling theory that explains that the stock dividend gives a positive signal because the manager of the company will inform of the future prospects the company to the public. Stock dividend does not provide good returns so investors keep on selling their shares. This is because the stock dividend made by the issuers does not provide new information that causes the investors to stay interested in the shares. Stock dividend events conducted by issuers do not have enough information that is anticipated by the market so it does not affect the return obtained by the investors. Stock dividend by issuers is not able to increase investment because investors consider the return expectation to be equal to the actual return obtained. Stock dividend action will only increase the number of shares that are outstanding.

Based on the results of this study, the investors in Indonesia do not regard dividends as an indicator when deciding to buy or sell shares that are owned. This may indicate that investors are less interested in stock returns in the form of dividends and prefer capital gains as returns from any investments made. The return of capital gains is obtained from the difference between the selling price of the shares which is greater than the purchase price of the shares. In this case, the investor does not get any amount of profit above normal. These results support a half-robust efficiency market that indicates a state where the prices reflect not only past prices, but also all published information. In other words, financiers do not gain above normal profit by utilising public information (Jogiyanto, 2003).

Tobacco control policy is an independent variable (X) with interval scale and the indicator is the date of policy announcement (t0). Events studied in this research is tobacco control policy. These policies during the period 2003 to 2012. The observation period used. The period is estimated to be examined for 247 days, from t-252 to t6 before

the day of the event. The event window is researched for 11 days, from t-5, t0, to t + 5. Before discussing the variables to be used in the control policy. Return which is the rate of investor return on investment and market return is the reaction rate against. Stock returns the latest results from stock prices. The market index used is the Composite Stock Price Index. Therefore, the variables used to determine the impact on the capital market in Indonesia with the abnormal return of each share. Abnormal return calculation is the difference between the actual return that occurs with the expected return of the investor (expected return). Return of expectation must be estimated and in this research using market model.

### 5 CONCLUSIONS

The conclusions in this paper are as follows:

- 1. Based on the results of the first hypothesis testing, it can be concluded that there are abnormal returns obtained by investors in the Indonesian capital market around the tobacco policy announcements in 2003, 2009, and 2012 respectively.
  - a. PP no. 19 of 2003 on Security Cigarettes for Health responded as good news on four days before the announcement, and on the day of the announcement due to the abnormal return positive move.
  - b. The day of the 2003 WHO Framework Convention on Tobacco Control (FCTC) came out as bad news for the market because the abnormal return was negative at t [-5, -4, -1,0, +2, +3, +5], although the value was not statistically significant.
  - c. The announcement of RI Law. 36 Year 2009 on Health gave a positive impact abnormal return for the market although it is not statistically significant.
  - d. Since PP No. 109 in 2012 on Security of Ingredients Containing Addictive Substances in the form of Tobacco Products for Health was announced, for three days after the announcement, the market received a negative signal with a negative abnormal return value and then moved postively then down again on the fifth day after the announcement.
- 2. There is an average difference in the abnormal returns before and after tobacco control policies but the value is not significant.

3. By testing One Way Anova, it is noted that the average abnormal return is different and also has a different population variance.

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