A STUDY OF INVESTOR RESPONSE TO NEW PRODUCT LAUNCHING: A COMPETITIVE STRATEGY APPROACH

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ABSTRACT

This study examines investor response to the announcement of new product launching. The research design was event study methodology, where the researchers want to test empirically the investor response to new product launching by considering the business strategy used by each firm. Population of study was all firms listed in Indonesia Stock Exchange, except firms in the financial industry during 2009-2012. The samples were firms that announced their new products, and were selected based on certain criteria. During the period there were 63 announcements of new product launching from 27 firms. Rivals were identified for comparative analysis purpose. All firms in the same sub sector were considered as rivals. The announcing firms and its rivals were identified into competitive strategy group (strategic substitutes, strategic complements), by employing Competitive Strategy Measure in reference to Sundaram, John and John (1996). In this study the announcement-period was two days before and after the announcement date. The analysis was performed by comparing, before and after, Cumulative Abnormal Return (CAR) for each event of the announcing firms. The average cumulative abnormal return of the announcement period of announcing firms was then compared between strategy groups (strategic substitutes, strategic complements). In addition, CAR was compared between announcing firms and its rivals in strategic substitutes group, and in strategic complements group. The comparative study showed that the announcing firms in strategic substitutes group gained higher return than the announcing firms in strategic complements group. There was no significant difference between the announcing firms and its rivals, neither in strategic substitutes nor in strategic complements.

***Keywords**: new product, stock return, competitive strategy, Indonesia*

ARTICLE INFO
Article History:
Received: 27 March 2016
Accepted: 31 October 2016
Published: 23 December 2016

INTRODUCTION

Since 2005, the World Economic Forum assesses the competitiveness of countries through the Global Competitiveness Index (GCI). Indonesia ranked 38th out of 148 countries in the Global Competitiveness Index 2013-2014 with a score of 4.5, an increase from 4.4 in 2012-2013, which ranked 50th out of 144 countries. The Global Competitiveness Report states the economic development stages. Stage one is the factor-driven, stage two is efficiency driven, and stage three is innovation-driven. Indonesia has been in the efficiency driven stage since 2011, in other words it is still not yet in a stage of innovation driven economy.

According to the Global Innovation Index (GII) 2013, a comprehensive study by Cornell University, INSEAD Business School, and the World Intellectual Property Organisation, Indonesia ranked 85th of 142 countries, with a score of 32.0. There is a rise from ranked 100th out of 141 countries in 2012 with a score of 28.1. Indonesian Government seeks intensively to foster innovation in a sustainable manner towards innovation-based economy by 2025.

A research by Koku (2009) examined the reaction of capital markets and the information content of the launching announcement for new products in computer industry in the United States. The results showed positive market reaction when launching new products with detailed information.

Srinivasan, Pauwels, Silva-Risso and Hanssens (2007) examined the innovation of new products and marketing investment on stock return in terms of concept, and also empirically. The results showed that launching of new product had a positive effect on stock return. The pioneer of innovation, which announced important information during new product launching, experienced more stock return.

Chen, Ho, Ik and Lee (2002) studied the competitive strategies effect in terms of new product launching to corporate value. The empirical analysis used event study methodology, with the data of 384 new product launchings. Samples were 101 companies from various industry sectors in the United States. It employed the Sundaram, John and John (1996) Competitive Strategy Measure (CSM). Results showed positive effect on companies

stock return in strategic substitutes group, but not significant for companies in strategic complements group (Chen, Ho, Ik & Lee, 2002).

The study purpose was to assess investor response to new product launching. A competitive strategy approach is a comparative analysis between strategic groups of announcing firms, that is strategic substitutes versus strategic complements. In addition, a comparative analysis was performed between the announcing firms and its rivals, the listed firms in the same industry.

The contribution of this paper is to attest whether investor detects the information content about new product launching. Second, to verify the outcome of the firm value due to new product launching event. Third, to study innovation strategy, pertaining to strategic substitute versus strategic complement: which one gets the most response.

THEORETICAL REVIEW AND HYPOTHESIS FORMULATION

Strategic Management

Business strategy was formulated, implemented and evaluated with the assumption of competition. Every company should take a proactive approach and seek to influence, and then begin to anticipate rather than to respond to an event in the industry (David, 2011).

Porter's generic competitive strategy is divided into three types of strategies. Cost leadership strategy is adopted when an organisation wants to become a market leader, establish low-cost product with a broad customer base. Differentiation strategy is executed when a company wants to compete with its competitors in terms of product uniqueness and services offered. Focus strategy is implemented when a company wants to serve the specific needs of a niche market.

Innovation

Innovation is definined by Sehested and Sonnenberg (2011) as something new that creates added value and benefits. Innovation according to O'Sullivan (2009) is the process of building changes to products, services, and processes, large and small, radical and gradual, which produces something new and contributes to an organisation, and add value to the customer. We conclude that innovation is the redoing of existing things, replacing with a new one, which is suitable and relevant to the current context.

Wheelwright and Clark (1992) in O'Sullivan (2009) divided the degree of change in new products development on four things. They are incremental improvements, additions to product families, next generation products, and new core products.

Ulrich and Eppinger (2008) in Puotunen (2013) classified the design of new products in four categories. New product platform is a new product family. Derivatives of existing product platforms, a new product derived from an existing product, expanding the product family with one or two new products to existing markets. Incremental improvements and additional new products are the modification result of existing products, with several features addition. It is made with the purpose of keeping the new product line and remains competitive. Fundamentally new product using radical new technologies and new products with new target market, have a high risk but may improve outcomes in the long term.

Signaling Theory

A good company delivers credible signals about its business to the capital markets to differentiate itself from other companies (Bhattacharya & Amy, 2003). The signal, according to Brigham and Houston (2001) in Sukwadi (2006), is an action taken by company management to provide guidance to investors about the company. Investors are expected to response in the form of investment in the company with the information content , and in turn is reflected in the stock price fluctuations (Santosa, 2009 in Pratiwi and Ulupui, 2013).

Efficient Market Theory

Fama and French (1992) defined an efficient market as a market where securities prices fully reflect available information. The efficient market hypothesis states that there is no past information that can be used to predict the movement of stock prices in future.

Previous research operating the event had studied the methodology in the United States in four major industries (Computer, Chemical & Pharmaceuticals, Photographic, Electrical) shows that new product launching increases corporate value. The observation period is a five-day window, three days before and one day after new product launching event date (Chaney, Devinney & Winer, 1991).

Eddy, Fletcher, Margenthaler and Reinhard (1993) did research on the financial signals and new product launching. The focus industry was computer hardware company with 166 new products launching by 16 companies. The research design was an event study methodology, and observation window was seven weeks before and six weeks after the announcement. Results showed an increase in cumulative average return significantly 12 days before the announcement and ending a few days after the announcement.

Other research by Sharma and Lacey (2004) examined the market reaction on new products launching in pharmaceutical industry in the United States. The results of empirical analysis showed significant abnormal return on the day before the event, on the day of the event, and one day after the launching of new products with positive news. In contrast, products with negative news coverage generated negative abnormal return.

Srinivasan, Pauwels, Silva-Risso and Hanssens (2007) examined the effect of product innovation and marketing investments to short-term and long-term stock return, with a focus on six leading automobile manufacturing in America. The study used Fama and French (1992) model to explain stock return, consisting of company size, market return and the book to market ratio. Results showed the launch of new products had a positive effect on firm value. The results were higher when the new product launch was supported by a fairly large advertising investment.

Koku (2009) studied the market reaction towards new product launching in computer industry. Samples were grouped based on information content. Results showed positive and significant market reaction to product innovation launching with detailed information as compared to new products launching without detailed information.

Markovitch and Steckel (2010) examined the consistency of market reaction to new product launching, and product business performance , which was categorised by successful product and failed product. Results showed that market reaction was consistent at 65 percent to successful products. The market reacted to industrial products rather than to consumer products.

Lyandres (2006) studied the interaction of corporate competition, optimal leverage and strategy effectiveness. The Competitive Strategy Measure characterises the competition interaction in two groups, i.e. Strategic Substitutes, and Strategic Complements. Indicators used were Market Leverage, Book Leverage, Market to Book, Asset, Profit margin, collateral, and dividend. Results of the empirical study showed that the competition interaction level was an important determinant of the market and book leverage ratio. Competitive interactions between firms positively affected optimal leverage debt upon strategic benefits.

Sundaram, John and John (1996) examined the interaction of company with its competitors by operating Competitive Strategy Measure. The empirical analysis explains the stock market reaction to the company announcing a change in the cost of development and research in the context of strategic competition. The majority of industries in the research were pharmaceuticals, chemicals, aerospace, and medical products. The results showed a positive effect of research and development funding announcement for companies that compete in strategic substitutes. Companies in the category of strategic complements got negative effects.

Chen, Ho, Ik and Lee (2002) studied the launching of new products to firm value associated with corporate competition interaction. New product launching information was taken from the Dow Jones News Retrieval Service database, from January 1991 to December 1995, with a sample of 39 sectors, and 101 companies. Indicator for strategy groups being used is

Competitive Strategy Measure by Sundaram, John and John (1996). The results showed positive effect for companies in strategic substitutes, but not significant for those in strategic complements.

Hypothesis

A good company delivers credible signals about its business to the capital markets to differentiate itself from other companies (Bhattacharya & Amy, 2003). A Signal, according to Brigham and Houston (2001) in Sukwadi (2006), is an action taken by the company management to provide guidance to investors about the company. The information content in the signal is expected to be positively responding in the form of investment in the company. Investors responded the signal, which in turn is reflected in the stock price fluctuations (Santosa, 2009 in Pratiwi and Ulupui, 2013).

Several studies in new product launching events showed an increase on stock return. Chaney, Devinney & Winer (1991) researched in four major industries (Computer, Chemical & Pharmaceuticals, Photographic, Electrical) in the United States, and showed that the launch of new products increase the company value. A research by Eddy, Fletcher, Margenthaler and Reinhard (1993) in the computer industry showed a significant increase on stock return on new product launches. Result of research by Sharma and Lacey (2004) on new product launching in the pharmaceuticals industry showed a significantly positive abnormal return. Another study of new products launching in computer industry by Koku (2009) showed a positive and significant market reaction. Based on these explanations, the first hypothesis is:

H_1: New product launching contains important information for investors, as reflected on stock return during the period of observation, ceteris paribus.

Sundaram, John and John (1996) examined the interaction of company as compared to its competitors by using the indicator Competitive Strategy Measure. The results showed a positive effect for companies that compete in Strategic Substitutes, whereas companies in Strategic Complements got a negative effect. Chen, Ho, Ik and Lee (2002) examined the effect of new product launching to company value, and the result was a positive influence

for companies in Strategic Substitutes, but was not significant for companies in Strategic Complements. Competitive strategy was the company's position relative to its competitors in the selected market. Lyandres (2006) examined the interaction of corporate competition, optimal leverage and strategy effectiveness. The Competitive Strategy Measure characterises the interaction of competition in two groups, Strategic Substitutes, and Strategic Complements. The second, third, and fourth hypothesis are stated as follows:

H_2: There is a significant difference in stock return of announcing firms between strategic substitutes group and strategic complements group, ceteris paribus.

H_3: There is a significant difference in stock return between the announcing firms and its rivals (listed firms in the same sub-sector) in strategic substitutes group, ceteris paribus.

H_4: There is a significant difference on stock return between the announcing firms and its rivals in strategic complements group, ceteris paribus.

This study examined investor response during new product launching events. The responses were reflected on the stock return during observation period. The stock return was observed prior to and after the new products launching events .

A competitive strategy approach will reveal the business competitiveness. The announcing firms, and its rivals, all firms in the same sub-sector were classified into two groups, strategic substitutes and strategic complements. Strategy indicator was Competitive Strategy Measure (CSM), a measure employed by Sundaram, John and John (1996). It was the correlation coefficient of the ratio of change in quarterly net income and changes in the announcing firm's quarterly sales launch of new products by competitors change in quarterly sales in the same sub-sector. If CSM is negative, a firm is in the strategic substitutes, its products can offset the products of their competitors. If CSM is positive, the firm is in strategic complements, as its product mutually reinforce to its competitor products. The two groups of announcing firm are compared. Furthermore, the announcing firms and its rivals are compared within each strategy group. Figure 1 shows the research framework.

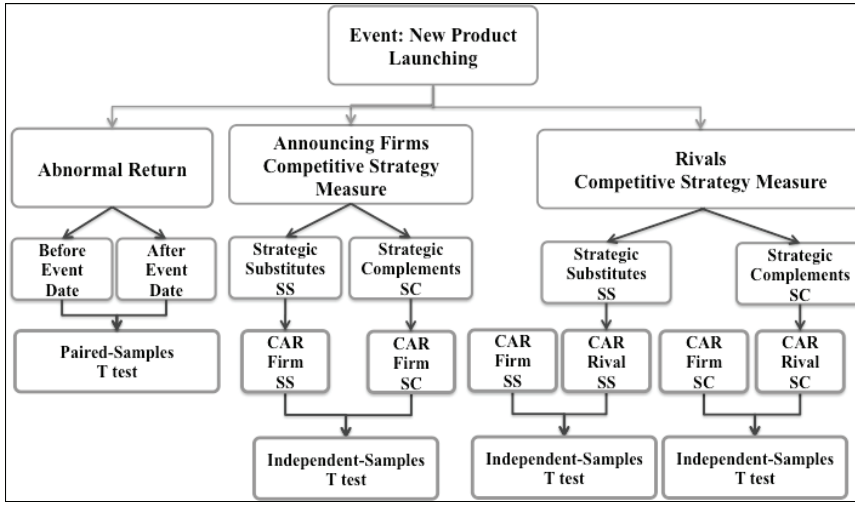

Figure 1: The Research Framework

RESEARCH METHODOLOGY

This study examined investors response to new product launching announcement, by analysing abnormal stock return around the observation period. The observation period, two days before and after the event date, was determined based on literature review. The starting point for measuring the response was on day t-2 that is two days prior to event date, and ends at day t+2, two days after the new products launching. The announcement (t0) is the first day of official statements on new product launching. The event period was centred on the announcement date, and was expected to show responses on stock return, generated from the new product launching announcement.

Indicators

- **Stock Return (R_i)**

$$R_{i,t} = \frac{(P_{i,t} - P_{i,t-1})}{P_{i,t-1}}$$

$R_{i,t}$ = stock return firm i period t
$P_{i,t}$ = stock price i on period t
$P_{i,t-1}$ = stock price i on period t-1

- **Return market (Rm)**

$$Rm = \frac{(JKSE_t - JKSE_{t-1})}{JKSE_{t-1}}$$

Rm_t = Return market, expected return on period t
$JKSE_t$ = Jakarta Stock Exchange composite index on period t
$JKSE_{t-1}$ = Jakarta Stock Exchange composite index on period t-1

- **Abnormal Return (Market-Adjusted Model)**

$$AR_{i,t} = R_{i,t} - Rm_{i,t}$$

$AR_{i,t}$ = Abnormal Return i on period t
$R_{i,t}$ = Stock Return of Firm i on period t
$Rm_{i,t}$ = Return market from Jakarta composite index on period t

- **Cumulative Abnormal Return**

$$CAR_{it} = \sum_{t=t_1}^{t=t_2} AR_{it}$$

- **Competitive Strategy Measure (CSM) (Sundaram, John & John, 1996).**

$$CSM = \rho_{XY}$$

$$\rho_{XY} = \frac{\text{cov}(X, Y)}{\sigma_X \sigma_Y}$$

$$X = \left(\Delta \frac{Dp^A}{DS^A} \right)$$

$$Y = \Delta DS^R$$

Elements of CSM:

1. Dp^A Quarterly Net Income of announcing firm
2. DS^A Quarterly Net Sales of announcing firm
3. DS^R Quarterly Net Sales of rivals (firms in the same sub sector)

The CSM is the correlation coefficient between Dp^A/DS^A and the change in the rivals' net sales DS^R. If CSM is negative, the firm is in the strategic substitutes, its products can offset the products of their competitors. If CSM is positive, the firm is in strategic complements, as its product mutually reinforce to its competitor products.

Sampling Method

The sample selection method was purposive sampling method. The population was all companies listed in Indonesia Stock Exchange. There were 481 listed companies in the Stock Exchange until December 2013.

The criteria for samples selection were as follows:

1. The company launching new product.

2. The company and the new product launching date information are available from FACTIVA.com

3. The financial sector is excluded from the sample, with the consideration of this industry is very strict in regulations.

4. Daily stocks data is available from finance.yahoo.com

5. There is no corporate action announcement, such as dividend payment, and the stock split overlap on the date, five days before and after new product launching date.

Data Analysis

First step was to determine the resource of new product launching, that is Factiva.com. Then, searching information for new product launching in Indonesia during the period January 2009 to December 2012. Keywords used in data searching were: "new product", "introduce", "introduction", "launch", "replacement", "innovation project", "received approval", "unveil", "to market", "announce", "begin selling" as used by Chen, Ho, Ik and Lee (2002). Next, identifying firms listed on the Stock Exchange in the year 2009-2012, and compiling its new product information.

There are 70 new product launching information as preliminary data. The next step is to track new products launching date as a key point for the event study. Followed by, compiling and checking the dividend payment date, and stock split date for every event. If the event date coincides with the corporate action, the event date will be excluded from the sample. This was imperative in order to avoid biased information to analyse market reaction.

Sub-sector industry of the announcing firms were identified, and then its rivals were identifying. The rivals firms in the same sub-sector were identified for comparative analysis. At the time of one particular announcing firm was launching new products, the other firms in the sub-sector was examined as rivals, seeing that other firms did not launch a new product during the observation period.

The next step is compiling daily stocks price, and Indonesia daily composite index. Afterward, calculating abnormal return value of each event during the observation period. Abnormal return is the difference between the actual stock return with market return using the market-adjusted model

(Market-Adjusted Model). Subsequently, if announcing firms have several events, it will be calculated in average. This applies both to the announcing firms and its rivals.

Financial statement data were compiled for calculating Competitive Strategy Measure (CSM). Quarterly net sales and quarterly net income data were compiled during the period 2008-2013.

RESULTS AND ANALYSIS

Results

There were 27 announcing firms in Indonesia Stock Exchange launching new products during period 2009-2012. Table 1 shows the overview of sample selection.

Table 1: Sample Selection

Criteria	Total
Firms listed in December 2012	478
Firms with no product launching information in 2009-2012	(375)
Firms in Financial industry	(74)
Stock data is not available	(2)
Total Announcing Firms period 2009-2012	**27**

The announcing firms, and its rivals were classified into two groups, strategic substitutes and strategic complements. The competitive strategy indicator was Competitive Strategy Measure (CSM); referred to the indicators employed by Sundaram, John and John (1996). CSM is the correlation coefficient of the change ratio in quarterly net income and changes in the announcing firm's quarterly sales, and change in quarterly sales of all competitors in the same sub-sector. If CSM is negative, the firm is in the strategic substitutes, its products can offset the products of their competitors. If CSM positive, the firm is in strategic complements, as its product mutually reinforce to its competitor products.

Quarterly financial statement data were compiled from Quarter-4 2008 to Quarter-3 2013, seven firms data were not available for the calculation of CSM, and as a result the total firms in the ten sub-sectors were 103 firms. CSM of each sub-sector is shown in Table 2. Average CSM in the ten sub-sectors is -0.04. The lowest CSM is in sub-sector Cosmetics and Households, -0.17; there were four firms, all of them had negative CSM index. It means the firms were in Strategic Substitutes group. The highest CSM was 0.1 in the sub-sector Fishery, consisting of 3 firms. As in research by Sundaram, John and John (1996) in Chen, Ho, Ik and Lee (2002), the interpretation of the average value of CSM in the sub-sector had certain limitations because some sub-sectors had only a few companies.

Table 2: Competitive Strategy Measure Sub-Sector

Sub-Sector Sample	Firms	Average CSM
Plantation	10	0.05
Fishery	3	0.10
Animal Feed	4	-0.03
Food and Beverages	16	-0.13
Tobacco Manufacturers	4	-0.08
Pharmaceuticals	9	-0.10
Cosmetics and Households	4	-0.17
Telecommunication	6	-0.08
Wholesale; Durable & Non Durable Goods	26	0.02
Retail Trade	21	-0.06
TOTAL FIRMS | AVERAGE CSM	**103**	**-0.04**

The mean value of CSM of announcing firms was -0.08, the median value of -0.06, indicating that the sample of announcing firms' competition

was in strategic substitutes; its products can offset the products of their competitors.

This was in contrast with the study of Chen, Ho, Ik and Lee (2002). Samples were taken in the period 1991-1995 from 39 sectors; the average of announcing firms CSM was 0.04 (median 0.06), which means firms in strategic complements. Whereas, the research by Sundaram, John and John (1996), the announcement of financing Research & Development, samples were taken from the period 1985-1991 from 18 sectors, and the average of announcing firms CSM is -0.02 (median -0.02) that means firms in Strategic Substitutes.

In this study, the announcing firms were identified into strategic substitutes group (SS) and strategic complements group (SC) based on the correlation coefficient CSM. The majority of announcing firms were in SS group, as shown in Table 3. There were 18 (67%) firms in the strategic substitutes, and 9 (33%) in strategic complements. At the beginning of sample selection, there were 70 new products launching. However, there were seven new products launching concurrently by the same announcing firm on the same date. Identification required for event study method was the launching date. Thus, the total new product launching date (t0) were 63 events.

Summary of announcing firms and their new producst is shown in Table 3. During observation period, there were 15 firms (56%) launching a new product, six firms (22%) launching two new products, while six firms (22%) launching more than two new products. The most active firm launching new products is UNVR, namely 27% of total 63 events. Followed by MRAT as much as 10%, TLKM as much as 6%, TSPC, TCID, and HERO 5% of total. In average, every firm launching one to two new products during the period of observation.

Table 3: Summary of Events by Firm

Code	Events	% Sample
STRATEGIC SUBSTITUTES		
CPIN	1	2%
ICBP	2	3%
MYOR	2	3%
SKLT	2	3%
STTP	1	2%
GGRM	1	2%
HMSP	1	2%
DVLA	1	2%
KAEF	1	2%
MERK	1	2%
TSPC	3	5%
MBTO	1	2%
MRAT	6	10%
TCID	3	5%
UNVR	16	27%
UNTR	1	2%
HERO	3	5%
MPPA	2	3%
STRATEGIC COMPLEMENTS		
SIMP	1	2%
CPRO	1	2%
DLTA	2	3%
INDF	2	3%
RMBA	1	2%
KLBF	1	2%
BTEL	1	2%
TLKM	4	6%
AMRT	1	2%
TOTAL	**63**	**100%**

Summary of new product launching during observation period from 2009 to 2012 is shown in Table 4. There were 54% in 2010, while in 2011 and 2012 showed the same trend of 22% and 21%.

Table 4: New Product Launching by Year

Year	New Product	% Sample
2009	2	3%
2010	34	54%
2011	14	22%
2012	13	21%
Total	**63**	**100%**

Based on the identification of the new product launching date, it was found that eight events occurred on Saturday and Sunday, in which there was no stocks transaction in Indonesia Stock Exchange. Therefore, the launching date or event date was changed to Monday. The calculation of the firms' return, market return, and abnormal return were formulated with stock price and composite index data on Monday, the trading day. Observation time period t-2 to t+2 was determined based on the Indonesia Stock Exchange trading days.

In Table 5 is a summary of the identification of new types of products from each announcing firm. In this study, majority of product type was fast-moving consumer goods that were sold quickly at relatively low prices, non-durable goods, and purchase frequency quite often in small amounts. A number of 36% was a kind of body care products and cosmetics, 29% of food and beverages, such as processed foods and snacks, 14% of households in the form of maintenance, 8% was a computer application products, health supplements 6%, 5% cigarette products, and 2% vehicle products.

Table 5: New Product Category

	Code	New Product Category
1	SIMP	Margarine
2	CPRO	Processed food
3	CPIN	Processed food
4	DLTA	Beer
5	ICBP	Instant noodle, Seasoning
6	INDF	Snacks, Seasoning
7	MYOR	Snacks, Instant noodle
8	SKLT	Snacks
9	STTP	Snacks
10	GGRM	Cigarette
11	HMSP	Cigarette
12	RMBA	Cigarette
13	DVLA	Multivitamin supplement
14	KAEF	Multivitamin
15	KLBF	Multivitamin
16	MERK	Multivitamin supplement
17	TSPC	Health care
18	MBTO	Cosmetics
19	MRAT	Cosmetics, Skin care
20	TCID	Cosmetics, Skin care
21	UNVR	Home and personal care, drinks
22	BTEL	Software application
23	TLKM	Software application, IPTV service
24	UNTR	Truck
25	AMRT	Home care
26	HERO	Home care
27	MPPA	Snacks

The research design was event study methodology, in which the researchers wanted to test empirically the investor response to new product launching. Testing of hypotheses used was paired-samples test of abnormal stock return before and after events. The abnormal stock return

was calculated from the estimated market return using the market-adjusted models.

Average Abnormal Return and Cumulative Abnormal Return CAR is shown in Table 6. The observation time was specified t-2 to t+2 based on the trading day, but to further examine the market reaction, the total observation time was extended to five days after the event date, t+3, t+4, and t+5.

Table 6: Average Abnormal Return of Announcing Firms

Day (t)	ARt	CAR
-2	0.0018	-
-1	0.0116	0.0134
0	-0.0027	0.0107
+1	0.0023	0.0130
+2	-0.0046	0.0085
+3	0.0001	0.0085
+4	0.0005	0.0091
+5	-0.0008	0.0083

Statistical tests were then applied to assess differences in abnormal return before and after the new product launch events. Table 7 shows the summary of Paired-Samples T Test Cumulative Abnormal Return CAR for each event, n=63. The test was divided into several observation time panels (window). Panel A used a two-day before the event date and three days after and including the event date. Panels B, C and D used the same two-day period prior to the event date, but for the period after the event, Panel B using t+3 including the event date (t0), panel C continues to t+4, panel D continues t+5.

Table 7: Summary of Paired-Samples Test by Event

Panel A: Window (-2,2)		
Paired Samples Test	**CAR (-2,-1)**	**CAR (0,2)**
Mean	0.0075	-0.0064
t	1.77	
Sig. (2-tailed)	0.08	
α = 10%		
Panel B: Window (-2,3)		
Paired Samples Test	**CAR (-2,-1)**	**CAR (0,3)**
Mean	0.0075	-0.0054
t	1.58	
Sig. (2-tailed)	0.118	
α = 10%		
Panel C: Window (-2,4)		
Paired Samples Test	**CAR (-2,-1)**	**CAR (0,4)**
Mean	0.0075	-0.0043
t	1.35	
Sig. (2-tailed)	0.182	
α = 10%		
Panel D: Window (-2,5)		
Paired Samples Test	**CAR (-2,-1)**	**CAR (0,4)**
Mean	0.0075	-0.0063
t	1.58	
Sig. (2-tailed)	0.118	
α = 10%		

This abnormal return calculation was taken from the average abnormal return during the period of observation of each event. Cumulatively abnormal return of the announcing firms fluctuates, as shown in Figure 2. However, it showed a different trend between the announcing firms in Strategic Substitutes (SS) and in Strategic Complements (SC). CAR of SS group fluctuates above the CAR samples, while CAR of SC group tends to decrease, below the CAR samples. In the SS group, the highest CAR was 1.7% on t+1, higher than t0 (1.1%).

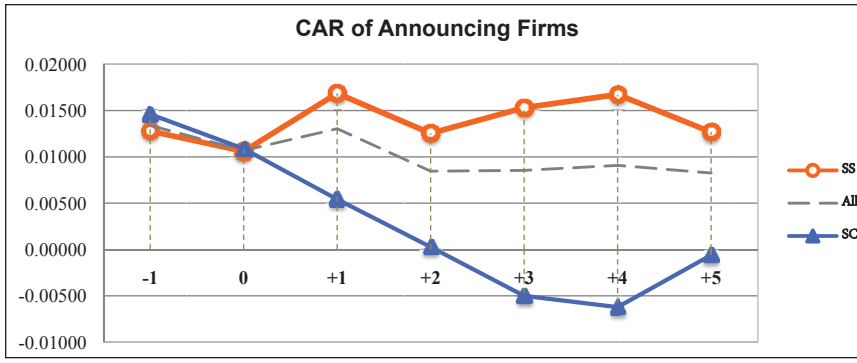

Figure 2: Cumulative Average Abnormal Return

Daily stock data of rivals were checked to ensure that there was no corporate action, such as dividend payment during the observation period of the event. Table 8 is an overview of Descriptive Statistics CAR of announcing firms and rivals launching new products during the period of observation (-2,2) based on CSM group. Some rivals' financial statement data were not found, several rivals were not listed on the Stock Exchange during the period, so that the rivals on this observation in total were 91 firms.

Table 8: Descriptive Statistics 1

	CSM	N	Mean	Std. Deviation	Std. Error Mean
Announcing firm	SS	18	0.0125	0.08044	0.01896
	SC	9	0.0003	0.01906	0.00635
Rivals	SS	50	0.0047	0.06235	0.00882
	SC	41	0.0045	0.08324	0.01300

Independent-Samples test was applied to examine the sensitivity of the market reaction in the strategy group. This study examined the significant differences in launching of new product strategy of announcing firms, between group Strategic Substitutes and Strategic Complements SC. Table 9 is the summary of the test results. A five-day period of observation is t-2 to t + 2. T test using $\alpha = 10\%$, p value $0.658 > 0.10$. This means that there is no significant difference between the CAR of SS group, and SC group.

The mean CAR of SS group is 0.0125, higher than the SC group, whereas, the CAR of SC is 0.0003, with a mean difference of 0.012. This is similar to the empirical analysis in the study of Chen, Ho, Ik and Lee (2002) and Sundaram, John and John (1996) that firms in Strategic Substitutes group experience higher return.

Table 9: Summary of Independent-Samples Test Announcing Firms

	Levene's Test Equality of Variance		t-test for Equality of Means		
	F	Sig.	t	Sig. (2-tailed)	Mean Difference (SS-SC)
Announcing Firms α = 10%	2.342	0.139	0.447	0.658	0.012

Another Independent-Samples test was also performed to assess significant differences in abnormal return of the announcing firms and its rivals. Abnormal return was calculated based on market-adjusted model, by substracting the rivals stock return with the return market. Table 10 is the average abnormal return of five-day observation period (t-2 to t + 2) of announcing firms (F) and its rivals (R).

The test result of cumulative average abnormal return on a five-day observation period (t-2, t2) explained that there was no significant difference between the announcing firms and its rivals, both in strategic substitutes and in strategic complements. However, the announcing firms in SS group had higher results as compared to its rivals. While in the SC group, the rivals experienced higher result than the announcing firms.

Table 10: Summary of Independent-Samples Announcing Firms - Rivals

	Levene's Test Equality of Variance		t-test for Equality of Means		
	F	Sig.	t	Sig. (2-tailed)	Mean Difference
Strategic Substitutes SS (SSF - SSR)	0.086	0.770	0.424	0.673	0.008
Strategic Complements SC (SCF - SCR)	2.606	0.113	-0.150	0.881	-0.004

Analysis

Identification of samples and test hypothesis provided an explanation for the following analysis. The first hypothesis (H1), that the launch of new products contains information for investors, *ceteris paribus,* it can be proven with sig (2-tailed) Cumulative Abnormal Return of shares before and after the event the launch of new products (significant at α=10%).

The new product launching gave the signal for investors. Referring to the signaling theory, Investors were expected to response positively to the information content in the form of investment in the company. The response by investors was ultimately reflected in the stock price fluctuations (Santosa, 2009 in Pratiwi and Ulupui, 2013). The second hypothesis (H2), states there is a significant difference on stock return of announcing firms between strategic substitutes group and strategic complements group, *ceteris paribus*. The SS group have higher return than the SC group. This was similar with the study by Chen, Ho, Ik and Lee (2002) that the announcing firms in SS group had more return than SC group. In Chen, Ho, Ik and Lee (2002) there was a significant difference between the two groups, whereas, in this study there was no significant difference between the groups.

The third hypothesis (H3) stated that there was a significant difference between the announcing firms and its rivals (listed firms in the same sub-sector) in strategic substitutes group, *ceteris paribus,* was not proven. In the SS group, the announcing firms get CAR 1.25%, higher than the competitors but not significantly.

The fourth hypothesis (H4) stated that there was a significant difference on stock return between the announcing firms and its rivals in strategic complements group, *ceteris paribus,* was not proven. In the SC group, rivals got CAR 0.45%, higher than the announcing firms. There was no significant difference between the announcing firms and its rivals in SC group.

These results supported the study of the strategic competition by Chen, Ho, Ik and Lee (2002). Announcing firms in strategic substitutes group experience higher abnormal return than its competitors. Likewise, Sundaram, John and John (1996) examined the effect of announcement of research and development funding, also found that company in strategic substitutes group have positive return compared to companies in strategic complements group. Thus, as the theory of strategic management, competitive strategy approach plays an important role in analyzing business strategy.

Nevertheless, the results of market reactions were different when reviewed by the type of new product launching. A study by Chaney, Devinney & Winer (1991) where the new product launching categories were high-tech industries such as computers, pharmaceuticals, and electrical equipment; the result was significant return the day before and the day of the announcement. The research by Eddy, Fletcher, Margenthaler and Reinhard (1993) in computer industry showed a significant increase on stock return on new products launching. The sample of study by Chen, Ho, Ik and Lee (2002) was dominated by industrial products such as computer and electronic (27%), and pharmaceuticals (14%). The results show positive effect on stock return of companies in strategic substitutes group. The results of research by Sharma and Lacey (2004) focused on pharmaceuticals industry products with positive news showed abnormal return significant one day before, on the day of the event and the day after the event. Research by Koku (2009) in the computer industry, a significant and positive, at $\alpha = 5\%$. Similarly, research by Markovitch (2010) reveals that the market reacted to the industrial product as compared to consumer products. Whereas, the samples of this study in Indonesia Stock Exchange were derivative products, the development of existing products, not too many new functions. Thus, those are not necessarily being a major contribution to the corporate sales level . This indicated that the new product with high-value innovation that have significant positive results.

Giving more comprehensive information to this study, a comparative analysis of the announcing firm between food and non-food industry was provided. The result explained that there was no significant difference between those groups. The result summary is available on the Tables 11 and 12.

Table 11: Descriptive Statistics Food vs. Non Food

Category	N	Mean	Std. Deviation	Std. Error Mean
FOOD	11	-0.0030	0.02636	0.0079
NON FOOD	52	0.0019	0.06830	0.0094

Table 12: Summary of Independent-Samples Test Food vs. Non Food

	Levene's Test Equality of Variance		t-test for Equality of Means		
	F	Sig.	t	Sig. (2-tailed)	Mean Difference (Food-Non Food)
Announcing Firms α = 10%	2.274	0.137	-2.40	0.811	-0.005

CONCLUSION

Based on the results of research and discussion, we summarise that new product launching, that was published containing information for investor. The announcing firms in strategic substitutes had higher return than the announcing firms in strategic complements. The announcing firms in strategic substitutes also had higher return than its competitors, firms in the same sub-sector. In the group of strategic complements, competitors in the same sub-sector, experienced better return than the announcing firms.

We consider that those firms with strategic substitutes approach, when performing product innovation, would have a considerable opportunity to win competitive advantages. Besides, investor responded to the action; therefore the value of the firms eas increased.

Suggestions for future research are extending the year period for compiling the sample, covering more media as a resource of information,

and adding other financial indicators as the variable, such as the company size. Suggestions for the development of academic are developing indicators related to innovation, and further study on firm's characteristic within a sub-sector industry in Stock Exchange.

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