

# Amortization, Research and Development Expense, Unusual/Exceptional Item Relevance for Street Earnings

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## ARTICLE INFO

Received: 25-09-2021

Revision: 2-10-2021

Received: 10-11-2021

Keywords:

street earnings;  
unusual / exceptional  
item;

relevance;

OSIRIS;

Indonesia

## ABSTRACT

This study is motivated by the phenomenon of investors' concern when they saw earnings from companies prepared by accounting managers who have self-interest tendencies. As a result, investors may be misled in companies' assessments. Based on this phenomenon, this study helps investors to get the relevant value of earnings by eliminating three items in the income statement so it becomes a value known as street earnings. Street earnings are values that are generally generated by securities analysts. This value is the result of recalculation of accounting earnings excluding non-recurring items, wherein in this study, the items are amortization, research and development expenses, and unusual/exceptional items. This research focuses on the relevance of these three values especially unusual/exceptional items as a novelty. This relevance is calculated by looking at the strength of relations between three variables partially to year-end stock prices based on the value of R square. Secondary data used from manufacturing companies in Indonesia was obtained by the OSIRIS database from the 2015 - 2020 period. As a result, none of the three variables has strong relations with stock prices, which means three variables are irrelevant and should exclude in the calculation of street earnings to make street earnings relevant. The limitation of this study is research and development expense does not refer to companies specific activities, so irrelevant results does not mean research activities are useless. From these limitations, further research is comparisons of the relevance between the disclosure of research and development activities and research and development expense.

## Introduction

Usually, there are three types of agency conflicts that often occur, namely conflicts between shareholders and management, shareholders, and majority shareholders (Purwaningtyas & PANGESTUTI, 2011). And this research is motivated by the phenomenon of investors when reading earnings based on accounting profits because managers have a personal interest in what

they own. According to (Ratnasari & CHABACHIB, 2012) large companies or go public tend to have less incentive to smooth earnings because these large companies are noticed by the public. and according to (Rahmawati & Muid, 2012) small companies will tend to practice income smoothing because small companies get less attention from analysts and investors. (Dewi & ZULAIKHA, 2011) because profit, in general,

How To Cite:

Pane, Z. I. (2021) Mortization, Research and Development Expense, Unusual/Exceptional Item Relevance for Street Earnings. *Journal of Social Science* 2(6). <https://doi.org/10.46799/jss.v2i6.226>

E-Issn:

2721-5202

Published By:

Ridwan Institut

is the main concern in management responsibility. Logically, accounting earnings are contained managers' interest in increasing bonuses (Moradi, Salehi, & Zamanirad, 2015) so that the figures presented can mislead investors (Bardos, Golec, & Harding, 2011). As a result, investors usually seek other information (Ebaid, 2012) one of them through securities analysts. Analysts are considered more independent because their function is only as an intermediary between investors and companies (Barker & Imam, 2008). In practice, analysts publish figures about companies which are often known as I/B/S earnings (Mbagwu, Entwistle, & Feltham, 2007) or analyst consensus earnings (Barth, Gow, & Taylor, 2012) or street earnings (Sadique & Sheikh, 2013).

Street earnings come from adjustment items in the income statement that are considered irrelevant. These items are categorized as non-recurring items. There is no standard agreement on the category of non-recurring items, but based on previous studies non-recurring items contain restructuring costs, acquisition costs, gains on asset sales, the realization of investment gains (Gu & Chen, 2004), write-down costs, and revaluation (impairment), research and development costs, merger and acquisition costs, mandatory stock compensation expenses, amortization of goodwill and certain proceeds from subsidiaries (Bradshaw & Sloan, 2002).

Two of the above non-recurring items in the Indonesian study had different results. First, amortization. In the 1999-2006 research period, it was found that goodwill amortization had no relevance and was only considered a confounding variable (Lestari and Baridwan, 2008 cited by Suryandari & Yunitha, 2011) but in the 2001-2008 period it was found that amortization had a relevance value (Suryandari & Yunitha, 2011). Second, research and development expenses. In the research period 2012 - 2016, it was found that this expense had value relevance (Putri, 2018) but in the period 2012 - 2017, it was found that this expense had no value relevance (Ferida, Alfian, & Firmansyah, 2021).

This study specifically examines 3 items categorized as non-recurring items, namely amortization, research and development costs, and unusual/exceptional items for two

reasons. First, to confirm the previous study that amortization and research and development costs are non-recurring items, so must be eliminated to make street earnings in Indonesia. Second, determine if unusual/exceptional items also include non-recurring items which are not discussed in previous studies.

The novelty in this study is the unusual/exceptional item variable that has not been studied previously. These variables are listed in the financial statements stated from the OSIRIS database

The results of this study provide a suggestion for investors when calculating relevant earnings so they can't mislead when making decisions. An investor only subtracts the three items from the income statement. Another advantage of this study is to strengthen the role of securities analysts as independent parties through a value called street earnings.

Based on previous studies, this research only focuses on one phenomenon through three research questions, namely: a). are depreciation and amortization relevant? (b) are research and development costs relevant? (c) are unusual/exceptional items relevant? (d) do the three items above affect the stock price?

This study was conducted by partially testing the level of relevance of the three items to stock prices and testing their effect on stock prices. This method is carried out to strengthen the conclusion of the three items above deserve excluded from the calculation of street earnings

## Method

### 1. Sample selection

To prove the above hypothesis, data collection was carried out through purposive sampling by the objectives of this study. The selected sample is all manufacturing companies in Indonesia using the IDX Industrial Classification (IDX-IC) category in the primary consumer goods sector (IDXNONCYCY), the non-primary consumer goods sector (IDXCYCLIC), and the health sector (IDXHEALTH). This study was conducted from the 2015 – 2020 period as many as

100 valid companies with data sources obtained from the OSIRIS database.

## 2. Variable and measurement

This study uses three independent variables and one dependent variable without a controlling variable to test the strength of the relationship through the R Square. The strength of the relationship is divided into the following 3 categories (Dwimulyani, 2019) :

- a. If  $R^2 < 0,40$   
= weak relation
- b. If  $0,40 < R^2 < 0,60$   
= moderate relation
- c. If  $R^2 > 0,60$   
= strong relation.

### a) Stock price (MP)

This variable is measured using year-end stock prices and is consistent with previous research on value relevance (Albring, Cabán-García, & Reck, 2010).

### b) Amortization (AMR)

This variable was measured by using the amortization value charged in the loss statement which is consistent with previous research (Suryandari & Yunita, 2011). The formula is as follows :

$$\text{AMR} = \frac{\text{Amortization expense}}{\text{total asset}}$$

### c) Research and Development Expense (RND)

This variable is measured by used research and development costs charged to the income statement consistent with previous research (Gong & Wang, 2016; Wang & Fan, 2014). Formula as follow :

$$\text{RND} = \frac{\text{Research and Development expense}}{\text{total assets}}$$

### d) Unusual/exceptional item (UNS)

This variable is measured by using unusual/exceptional item costs that are charged to the income statement but no previous study has explicitly used it. The formula is as follow :

$$\text{UNS} = \frac{\text{Unusual or exceptional item}}{\text{total assets}}$$

## 3. Linear Regression formula

### Model 1

$$MP_{it} = \beta_0 + \beta_1 AMR_{it} + e_{it}$$

### Model 2

$$MP_{it} = \beta_0 + \beta_1 RND_{it} + e_{it}$$

### Model 3

$$MP_{it} = \beta_0 + \beta_1 UNS_{it} + e_{it}$$

## Results And Discussion

### 1. Descriptive statistics

Based on the results presented in table 1 below, indicates :

- a. The dependent variable of stock price or Y has a minimum value of 3,597 and a maximum of 9,842 and a mean of 6,412 or close to the maximum value, indicating stock price is closed to maximum price. The standard deviation of 1.381 is smaller than the mean, indicating the deviation of the data is relatively small from the average value.
- b. The independent variable unusual/exceptional item has a minimum value of -0.059 and a maximum of 0.009 and a mean of -0.00022 or closed to the minimum value indicating unusual/exceptional value is more negative, means many companies recognize unusual/exceptional items as a reduction of net profit.
- c. The independent variable amortization has a minimum value of -0.051 and a maximum of 0 and a mean of -0.00125 indicating the company charges a minimum amortization of 5.1% of total assets with an average of 0.125% of total assets.
- d. The independent variable amortization has a minimum value of -0.051 and a maximum of 0 and a mean of -0.00125 indicating the company charges a minimum amortization of 5.1% of total assets with an average of 0.125% of total assets.

**Table 1**  
**Descriptive statistics**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
MP	600	3.597	9.842	6.412	1.3813
UNS	600	-0,059	0,009	-0,00002	0,006324
AMR	600	-0,051	0,000	-0,00125	0,003649
RND	600	-0,002	0,000	-0,00004	0,000183
Valid N (listwise)					

**2. Correlation**

Correlation analysis as a statistical analysis technique is known as a Pearson Product Moment (PPM) correlation and was first discovered by Pearson (1904) and states that the correlation reflects the degree of the linear relationship between two or more variables. The correlation in Table 2 shows that there is a correlation between amortization and stock market prices with a value of -0.097 significant at 0.05 level errors. It shows that amortization charged by the company has an impact on firm value, which means the

formation of stock market prices could come from the amortization charges that should be carried out by applicable accounting standards. Meanwhile, the other two independent variables, unusual/exceptional items, and research and development expense do not correlate with firm value, meaning that the formation of stock market prices does not come from these two variables.

Among the three independent variables, there is no significant correlation, meaning that there are no symptoms of multicollinearity,

**Tabel 2**  
**Correlations**

	<b>Unusual / Exceptional item</b>	<b>Amortization</b>	<b>Research &amp; development</b>	<b>Market share</b>
Unusual / Exceptional item	1			
Amortization	.009	1		
Research and development	.053	.008	1	
Market share	-.033	<b>-.097*</b>	-.063	1

\*. Correlation is significant at the 0.05 level (2-tailed).  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

**3. The result of H1**

SPSS version 25 software is used in this regression and gives the results shown in table 2 where the amortization with R square of 0.009 below 0.40 shows this variable has a weak relation with stock prices, then H1 is fulfilled. This result also showed a significance value of 0.018 then there is a significant effect on stock prices.

This result provides two explanations. First, although it gives significant results, the strength of relevance for amortization is very weak. This is by previous studies which stated amortization as a confounding variable (Lestari and Baridwan cited by [Suryandari & Yunitha, 2011](#)). Second, for this reason, this variable is categorized as a nonrecurring item and should exclude in the calculation of street earnings ([Bradshaw & Sloan,](#)

2002) so that street earnings become relevant to be used by investors as an alternative earnings information (Ebaid, 2012)

#### 4. The result of H2

Research and development expense has an R square of 0.004 indicating this variable has a weak relation with stock market prices, then H2 is fulfilled. The significance value of 0.124 also shows that this variable has no significant effect on stock prices.

This result provides two explanations. First, the relevance of research and development expenses is weak by previous studies (Ferida et al., 2021). Second, for this reason, this variable is categorized as a non-recurring item and excluded in the calculation of street earnings (Bradshaw & Sloan, 2002) so that street earnings become relevant for

investors to use as an alternative earnings information (Ebaid, 2012).

#### 5. The result of H3

Unusual/exceptional items have an R square of 0.001 below 0.40 indicating this variable has a weak relationship to stock market prices, then H3 is fulfilled. The significance value of 0.413 also shows that this variable has no significant effect on stock prices.

This result provides two explanations. First, the strong relevance of the unusual/exceptional item variable is weak, indicating that this variable is a novelty in a categorized nonrecurring item and excluded in the calculation of street earnings. Second, excluded unusual/exceptional items relevant for the investor when used street earnings as alternative earnings information (Ebaid, 2012).

**Table 3**  
**Strength of Relation**

	Hypothesis 1		Hypothesis 2		Hypothesis 3	
	R Square	Sig	R Square	Sig	R Square	Sig
Amortization	0,009	0,018				
Research Development			0,004	0,124		
Unusual / Exceptional item					0,001	0,413

#### Conclusion

The results of this study provide four important findings for manufacturing companies listed in Indonesia in the categories of the primary consumer goods sector, non-primary consumer goods sector, and the health sector. First value relevance of amortization, research, and development, unusual or exceptional item is weak. All variables do not have value relevance so should exclude in street earnings calculation.

Second, eliminating three items in the calculation of street earnings will make street earnings relevant for investors as an alternative earnings information because accounting earnings are prone to be manipulated by managers

Third, analysts' position as an intermediary is increasingly trusted because they can analyze and eliminate irrelevant variables. After all, analysts are not bound by accounting standards and are in a more independent position between managers and investors.

Forth, unusual/exceptional items become a novelty in Indonesia and treat similar like amortization, research and development, and another nonrecurring items. It is also useful for the third party to calculate street earnings by subtracting net profit in the financial statement with amortization, research and development expense, and unusual/exceptional item.

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Journal of Social Science

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