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Effect of Ordo in Assessment of Financial and Non-Financial Information

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Abstract

This research focuses on investor decision making on information provided by the company. Belief-adjustment models emphasize the order of presentation of information. Order effects occur when decisions made by individuals differ after receiving evidence in a different order. In order of evidence, the characteristics of the evidence are mixed between confirmative (positive) information and unconfirmed (negative) information. The participants of this study are investors who have investment accounts. The design of the 2x4 experimental method is divided into analysis of factor 2 (presentation pattern) x 4 (information value), which aims to test that the presentation of information in step by step (SBS) will have a better impact than end of sequence (EOS). There are 8 combinations of instruments contain patterns and information values that are used as a source of stock valuation. ANOVA analysis is used for this study. The results showed that there was an effect of the pattern of information delivery in investment decision making when the SBS and EOS disclosure patterns in hypothesis 1 and hypothesis 2. The results of hypothesis 3 did not support the belief adjustment model theory.

Efek Ordo dalam Penilaian Informasi Keuangan dan Non Keuangan

Abstrak

Penelitian ini fokus pada pengambilan keputusan investor atas informasi yang diberikan perusahaan. Belief-adjustment model menekankan pada ordo penyajian informasi. Efek ordo terjadi ketika keputusan yang dibuat oleh individu berbeda setelah menerima bukti dalam urutan yang berbeda. Dalam urutan bukti, karakteristik dari bukti tercampur antara informasi konfirmatif (+) dan informasi yang belum dikonfirmasi (-). Partisipan penelitian ini adalah investor yang memiliki akun investasi. Rancangan metode eksperimen 2x4 yang dibagi menjadi analisis faktor 2 (pola penyajian) x 4 (nilai informasi), yang bertujuan untuk menguji bahwa penyajian informasi secara step by step (SBS) akan memberikan dampak yang lebih baik dibanding end of sequence (EOS). Ada 8 kombinasi instrumen berisi pola dan nilai infomasi yang digunakan sebagai sumber penilaian saham. Analisis ANOVA digunakan untuk analisis. Hasil penelitian menunjukkan terdapat efek pola penyampaian informasi dalam pengambilan keputusan investasi ketika dengan pola pengungkapan SBS dan EOS pada hipotesis 1 dan hipotesis 2. Hasil hipotesis 3 tidak mendukung teori belief adjustment model.

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INTRODUCTION

The company has a great responsibility towards internal and external parties to disclose all company activities during one period in the form of a report that is published at the end of that period. Disclosure practices are quite diverse, one of which is the Financial Report and Non-Financial Report. Financial statements contain financial information related to company performance that will be used as a reference for future decision making for both investment and performance evaluation by internal and external parties of the company (Koonce et al., 2005; Brimble & Hodgson, 2007; Alattar & Al-Khater, 2008; Helmina et al., 2019).

Over time and information needs, financial statements seen by users of financial statements still have weaknesses. That was caused by a lack of other important information from the company. To judge a company, it is not enough just to look at the numbers of financial statements, but also must look at other aspects such as corporate objectives, economic situation, industrial situation, management style, corporate culture, and community culture. The Recording is also limited to only tangible assets, whereas at present many other intangible assets owned by the company include goodwill.

These weaknesses have led to an increase in demand for wider disclosure, especially non-financial information. Investors experience high concerns because they consider financial statements alone cannot adequately meet the information needs of shareholders about companies, especially for complex companies (Aboody & Lev, 2000; Bushman et al., 2004; Coles et al., 2008). Weak financial statements in providing information about the company as a whole, especially the absence of information on environmental, social, and corporate governance, is one of the reasons for the establishment of Sustainability Reporting (SR).

The belief adjustment model predicts the effect of the order in all cases of the response model (step by step or end of sequence model), task complexity and length functions. The Hogarth and Einhorn (1992) model predicts that decisions given after each evidence received which is known as the Step by Step (SBS) model tends to be that the presence of a recency effect is found, whereas the decision is given only once after receiving all the evidence known as End of Sequence response model (EOS) tends not to produce a review effect.

There is some other evidence regarding the use of belief-adjustment models in research into investor behavior. Pinsker (2007) concluded that when a series of brief information is presented in a consistently positive (or negative) manner that is revealed sequentially, not simultaneously, revisions to beliefs about stock market decisions are significantly more dependent on the information presented sequentially.

Another study Tuttle et al. (1997) also found an order effect on consistent serial information. Order effects occur when decisions made by individuals differ after receiving evidence in a different order. In the order of the evidence, the characteristics of the evidence are mixed between confirmative (positive) information and unconfirmed (negative) information. Phenomena regarding the effects of orders can occur when assessing new evidence and subsequent evidence. The adjustments made will be based on insufficient additional evidence.

Individuals will easily revise their beliefs when receiving new evidence, while the decision theory literature states that an individual generally tends to avoid new evidence (Ashton & Ashton, 1988). Evidence that a person will revise his belief to be greater when accepting existing evidence which may be a contradiction with previous beliefs, while the literature states that individuals, in general, are strongly influenced by evidence, that is consistent with their beliefs. Provide strong support with respect to the description of the validity of the belief adjustment model.

In the Belief Adjustment Model (Hogarth & Einhorn, 1992) there are two types of information series, namely the long informa-

tion series and the short information series. The long series of information is accounting information consisting of more than twelve accounting information. Short information series is a series of accounting information consisting of two to twelve information that is taken from the annual financial statements of a company. The Novelty of this study is the use of the accounting information series used in this study is a long information series, is expected to show the overall condition of company information and more than a short information series.

Hypothesis Development

Financial information related to company performance will be used as a reference for future decision making both for investment and performance evaluation by internal and external parties of the company. Moreover, financial information is considered more important than social responsibility reports. On the other hand, Investors also experience high concerns because they consider financial statements alone cannot adequately meet the information needs of shareholders about companies, especially for complex companies (Aboody & Lev, 2000; Bushman et al., 2004; Coles et al., 2008).

Order effects occur when individual decisions differ after receiving evidence in a different order. In the order of evidence, it is mixed between confirmation information (positive) and unconfirmed information (negative). If the initial information in of sequence has a large effect on an individual's trust, then the order effect is a primacy effect. On the other hand, if the latest information has a large effect, it becomes a recency effect.

The belief adjustment model (Perego et al., 2016) found that accountability reduces the effect of recency in decisions of possible business failure. Other research also states that there are factors that can reduce the effect of the order in decision making (Tubbs et al., 1993), especially decisions made in groups (Ahlawat, 1999). Pinsker (2007) found that there was greater confidence in adjustments for the disclosure of information delivered one at a time (sequenti-

ally) compared to the disclosure of information that was presented at the same time consistent both in the first series of information (short series of information) and after the second consistent information that had the same direction opposite (long series of information).

Trotman and Wright (1996) found that there was a review effect on participants with a step-by-step response model (SBS). Research by Ashton (2002) also provides similar evidence that the end of the sequence method (EOS) does not influence the presence of order effects. This shows that the pattern of the final disclosure of the sequence (EOS) is an effective method in reducing the effect of reconsideration done.

Thus, the proposed hypothesis is as follows:

H1 : The disclosure of the Step by Step model in financial reporting (FR) is more effective than the End of Sequence model.

H2 : Financial information of FR (++) and Sustainability Reporting (--) provides a higher rating than financial information of FR (--) and Sustainability Reporting (++) on the information presented in Step by Step.

H3 : Financial information of FR (++) and Sustainability Reporting (--) provides a higher rating than financial information of FR (--) and Sustainability Reporting (++) on the information presented in End of Sequence.

METHOD

This research is using an experimental method. Experiments were carried out by applying the 2 x 4 experimental method design which was divided into factor two analysis (presentation pattern) x 4 (information value) including:

Presentation patterns are: Step by step (SBS), End of Sequence (EOS) and the information value factor is divided by :
a) ++ / ++ (Positive good news followed by good news);
b) ++ / -- (Positive good news followed by bad news);

c) -- / ++ (negative bad news followed by good news);
d) -- / -- (negative bad news followed by bad news).

This research uses a web-based experiment conducted by researchers by asking participants to open a website address that has been designed in the form of interactive media. The use of the internet in experiments is considered to be able to increase the internal validity of research, constructs and external research results (Husnatarina & Si, 2012). The participants of this research are active investors who have accounts in securities companies. The number of investors as participants is 381 from all over Indonesia (Table 1).

Tabel 1. Instrument Distribution

Instrument	Total Response	Delivery EOS/SBS	Info. ++ /--
Instrument 1	54	EOS	++/++
Instrument 2	52	EOS	--/--
Instrument 3	57	EOS	++/--
Instrument 4	53	EOS	--/++
Instrument 5	51	SBS	++/--
Instrument 6	54	SBS	--/++
Instrument 7	30	SBS	++/++
Instrument 8	30	SBS	--/--

RESULT AND DISCUSSION

Hypothesis 1 test results show there are differences in the valuation of the company's stock price on information using the SBS method and information on financial statements and information presented by the EOS method shown by the Pattern factor (SBS vs EOS) in Figure 1. Based on Table 2 all sub-samples on Separate information

showing a significance value of 0.000 (p < 0.02) which shows a significant difference from the assessment based on information on the SBS and EOS patterns. EOS was declared more effective with a total value of 8.06 greater than SBS of 7.92. It mean hypothesis 1 is accepted.

The difference effect is more supported by the characteristics of information ++ / -- from EOS and SBS patterns, while information in the form of information characteristics -- / --. Furthermore --/ ++ and -- / ++ do not show significant differences in SBS and EOS patterns.

Table 2. Test the Difference in the Use of SBS and EOS Patterns in Stock Valuations

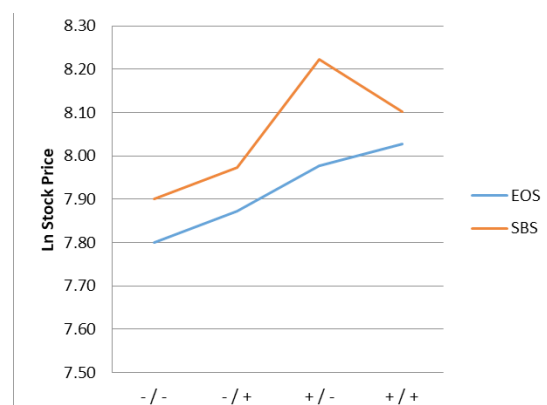| Information Characteristics	EOS	SBS	t	Sig.
-- / --	7.80	7.90	1.105	.272
-- / ++	7.87	7.97	1.652	.105
++ / --	7.98	8.22	3.843	.000
++ / ++	8.03	8.10	.874	.385
Total	7.92	8.06	3.695	.000

Figure 1. Interaction Pattern

Based on the Table 3, it can be seen that companies that present information characteris-

Tabel 3. Stock Valuation of Information ++/-- vs --/++ SBS Patterns

Information Characteristics	N	Ln(Stock Price)		t	Sig.
		Mean	Std. Dev		
-- / ++	54	7.97	.31	-3.955	.000
++ / --	51	8.22	.34		

tics -- / ++ with an SBS pattern show an average share price of 7.97, while an average price of shares on information with characteristics ++ / - shows an average value of 8.22.

The results of testing the differences in the valuation of company stock prices on accounting information Good - Poor Sustainability (++ /--) compared with poor financial information and Good Sustainability information (-- / ++) in the report presented by SBS method gives a significance value of 0.000 (p <0.01) which indicates a significant difference. This means that Hypothesis 2 is accepted.

Hypothesis 3 expects that investors will give different assessments on information on the condition of good financial performance and poor sustainability reporting, investors will give different assessments compared to the presentation of bad financial performance reports and good sustainability reporting on the end of sequence pattern. The general pattern of relationships between the Pattern and characteristics of information reports ++ / -- tends to be higher than the characteristics of information - / ++. The test results using the independent sample t test can be seen in Table 4.

CONCLUSION AND RECOMMENDATION

The results showed that there was an effect of the pattern of information delivery in investment decision making when judged by the disclosure pattern of SBS and EOS. The results showed that the step-by-step assessment (SBS) provided a higher rating than the decision using the End of Sequence (EOS) pattern. Hypothesis 1 testing for sub-samples applying EOS and SBS showed a significant difference from the assessment based on report information based on patterns with SBS and EOS patterns. These results indicate a belief adjustment effect in decision making. Some of the results of previous studies (Ashton, 2002; Pinsker, 2007; Almilia & Supriyadi, 2013) also show almost consistent results.

The results of hypothesis 3 do not support the theory of belief adjustment models (Hogarth & Einhorn, 1992) where the sequence of good news information is followed by bad news and subjects receiving bad news information followed by good news with Eos delivery patterns show a difference but with an assessment

Tabel 4. Stock Valuation of Information ++ / - and - / ++ EOS Patterns

| Information Characteristics | N | Ln(Stock Price) | | t | Sig. |
		Mean	Std Dev		
-- / ++	53	7.87	.33	-1.686	.095
++ / --	57	7.98	.32		

Based on Table 4, in companies that present the characteristics of information -- / ++ with the EOS pattern, the average price of shares is 7.87, while the average price of shares on information with characteristics ++ / -- shows an average value of 7.98. The results of testing differences in the valuation of the company's stock price on accounting information Good - Poor Sustainability (++ / --) compared with poor financial information and Good Sustainability information (-- / ++) in the report presented by EOS method gives a significance value of 0.095 < 0.10 which indicates a significant difference. This means that Hypothesis 3 is accepted.

of information + +/- still get a better rating. These results are also different from the results of research conducted by Hanafi (2017).

The difference in the results obtained in this study from previous studies seems to be because the presentation of information sequences seems to have different information characteristics than those previously studied. Previous studies using similar information sources, namely only from financial information, while this study presents a series of information from two different sources, namely FR and SR.

Some of the limitations obtained from this study are because this experimental study

does not use a full combination of factors so that several conditions of factor interaction cannot be investigated. Suggestions for future research are to use a full combination of factors so that the interaction of factors can be investigated and research results more precise.

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