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FRAMING EFFECT AND BELIEF ADJUSTMENT MODEL IN INVESTMENT JUDGMENT

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ABSTRACT

This study aims to examine the framing effect and belief adjustment model of the investment decision. A previous study examined the effect of framing and belief adjustment models partially. This research used the experiment method. The research method is 2 x 2 x 2 mixed design experiments (between and within-subject). Experiment method of 2 x 2 x 2 includes disclosure pattern (step by step and end of the sequence), evidence order (good news followed by bad news and bad news followed by the good news), and Framing Effect (negative frame and positive frame). Research participants in this research are a nonprofessional investor and professional investor.

The number of participants in this research is 274 people consisting of 154 participants from nonprofessional investors and 120 participants from professional investors. The researcher experimented from June to October 2015. The results showed that the framing effect, the order of presentation, and information patterns' presentation affect investors in making investment decisions. The contribution of financial accountancy literature is that this research tries to conduct reconstruction on the investment decision-making model puzzle.

KEYWORDS: Belief Adjustment Model; Framing Effect; Investment Judgment; Professional Investor; Nonprofessional Investor .

INTRODUCTION

Investors sometimes perform irrational actions in the stock market. Behavioral Finance Theory explains irrational actions through prospect theory. Prospect theory developed by Kahneman & Tversky (1979) explains the habit of human behavior when they have to evaluate risks in the uncertain condition that is presented in the form of information with a specific frame. Framing shows that decision-makers will respond differently to similar decision problems if the problem is presented in a different form. Koonce, McAnally, et al. (2005) (Koonce, Lipe, et al., 2005) show that it only discloses only corporate losses that can describe corporate risk in the framework of framing effect. Framing is used to refer to several ways to present a problem with different situations and causing an individual to set different decisions for each situation. The framing effect is a condition that commonly happens, and it needs to be wary because it can create bias in decision making.

Another factor that can affect investment decision making can be explained in the belief revision model. Bayes' Theorem was the most dominant normative belief revision before 1988. Bayes' Theorem became famous because of the logical consequence from conditional probability in belief revision. A study in decision-making behavior states that Bayes' Theorem is a model that is less comprehensive as a descriptive model of belief revision because it cannot predict intuitive revision Ashton & Ashton (1988); Kahle et al. (2005).

Ashton & Ashton (1988) stated that the order effect has potential implications in both the decision's efficiency and effectiveness. Efficiency can be affected when information presentation can limit or expand the decision-makers search for additional evidence. Effectiveness can be affected when the order can cause investment decision-makers to choose different investment actions; if the investment action taken is contrary, it will decrease decision accuracy.

Some investment decision-making models include the belief adjustment model and framing effect; their testings are done partially. This research will reconstruct some investment decision-making models that, during this, their testings are done partially. The result of this research is expected to be able to give contribution to meaning for financial accountancy literature, methodology, practice, and policy. The contribution of financial accountancy literature is that this research tries to conduct reconstruction on the investment decision-making model puzzle. Reconstruction on the puzzle of investment decision making in this research is to test the investment decision model of belief adjustment model developed by Hogarth & Einhorn (1992) and framing effect.

Conceptual Model of Judgment and Belief Adjustment Model

Hogarth & Einhorn (1992) proposed belief adjustment model propositioning that individual who processes information consequentially will use anchoring process and adjustment. The main benefit of the belief adjustment model developed by Hogarth & Einhorn (1992) is not only including three main characteristics of evidence used in Bayes' Theorem (direction, power, and type) but also expanding Bayes' Theorem by including two additional characteristics that are ignored in Bayes' Theorem which are information order and information presentation model. Table 2.1 illustrates the order effect prediction in the model developed by Hogarth & Einhorn (1992).

Belief adjustment theory states that, for combined evidence (positive and negative), there are two order effect possibilities, which are: recency effect and primacy effect. The primacy effect occurs when previous evidence is considered more important than the last evidence. The primacy effect is also known as the attention decrement effect: the last

evidence received is less considered compared to the first evidence (initial). The recency effect occurs when the last evidence received is more considered compared to the first evidence received. The primacy effect occurs because there is an individual limitation in processing the information they receive, so when receiving information in a certain amount, they tend to consider more on the first information rather than the information received last.

	Simple		Complex	
	End of Sequence	*Step by Step*	*End of Sequence*	*Step by Step*
Mixed Information Set				
Short	*Primacy*	*Recency*	*Recency*	*Recency*
Long	*Primacy*	*Primacy*	*Primacy*	*Primacy*
Consistent Information Set				
Short	*Primacy*	*No Effect*	*No Effect*	*No Effect*
Long	*Primacy*	*Primacy*	*Primacy*	*Primacy*

Table 1.
Order Effect Expectation Based on Belief Adjustment Model

Prediction of primacy or recency effect depends on the properties of duty variables. The primacy effect is predicted for End of Sequence presentation pattern together with a short and straightforward evidence series. For Step by Step presentation pattern with a short and straightforward evidence series, the recency effect is predicted to occur Hogarth & Einhorn (1992). Jogiyanto (2004) uses archival data, showing that from four hypotheses of recency effect, only recency effect hypothesis for negative dividend surprise is not supported. It shows that the order of negative dividend surprise is not essential.

The belief Adjustment Model of Hogarth & Einhorn (1992) predicts that a step-by-step presentation pattern will produce a recency effect when information is both complex or simple, while the end of the sequence presentation pattern will produce a primacy effect if the information is simple and a recency effect if the information is problematic.

Individual uses SbS processing strategy when information is presented in the form of SbS. Individual adjusts belief gradually when receiving each piece of information. Otherwise, EoS processing means that the initial anchor is adjusted with aggregative evidence presentation. Presentation in the form of EoS often produces an EoS processing strategy, especially when the number of information items is few and information is not too complicated. However, the series of information items that are relatively complex and long presented in the form of EoS may not be accommodated by individual cognitive capacity.

Asare (1992) also gives similar empirical evidence, which is the emergence of recency effect on manager and audit partner related to judgment going concerned when presentation pattern of evidence information is sequentially (step by step). A similar fact is also demonstrated by Tubbs et al. (1993), showing the existence of recency effect when an individual receives inconsistent evidence, even though the individual has been given the training to understand duty and to give a better evaluation on evidence, but recency effect is still found in similar condition. The researches of McMillan & White also support the support on argumentation of order effect in a step by step information presentation pattern (SbS); Ahlawat (1999); Baird & Zelin (2000); Monroe & Ng (2000); Guiral-Contreras et al. (2007); Pinsker (2007); Almilia (2013); Almilia & Supriyadi (2013).

Framing Effect

The framing effect involves a problem with two frames (positive and negative). If the problem is delivered in positive words, then the problem will be considered profit and tend

to avoid risk. Meanwhile, if the problem is negative, the decision maker will feel the emergence of loss.

Koonce, McAnally, et al. (2005); Koonce, Lipe, et al. (2005) show that there is only disclosure on only losses that can describe corporate risk in the framework of framing effect. Moreover, information about the amount of potential loss in risk disclosure affects risk evaluation and will affect the evaluation done by investor.

The research results of Kahneman & Tversky (1979); Emby (1994), Chang et al. (2002) show that based on the assumption that an individual behaves rationally, information consisting of positive risk will produce individual gains level that likely will be responded to by decision having tendency not to reduce gains that will be received. The decision that tends not to reduce the gains is the decision that has the least risk.

The previous researches examined a model of belief adjustment and framing effect partially. This research tries to reconstruct the investment decision-making model of belief adjustment model that represents the assumption that decision-makers will be affected by irrational matters (evidence order and information disclosure pattern) and the framing effect representing the content of information.

Hypotheses that will be tested in this research are:

H₁: *Subject who receives good news information then insufficient news information will give different judgment on the corporate stock to subject who receive bad news information than good news information on sequential presentation pattern and different condition of framing effect.*

H₂: *Subject who receives good news information then bad news information will give different judgment on the corporate stock to a subject who receive bad news information than good news information on simultaneous presentation pattern and different condition of framing effect.*

METHOD

Research Design

Subject criteria in this research are: having knowledge and experience in the field of investment and the stock market and financial report analysis. Based on the criteria, then, subjects in this research consist (1) active investor, passive investor, securities analyst, and other professions related to stock investment, and (2) accounting and management students who know the field of stock market financial report analysis. This research uses an experiment to test the causality relationship with some manipulated variables to answer study problems. **A research method** is 2 x 2 x 2 mixed design experiments (between and within-subject). Experiment method of 2 x 2 x 2 includes disclosure pattern (step by step and end of the sequence), evidence order (good news followed by bad news and bad news followed by the good news), and Framing Effect (Gain with the negative frame, Gain with the positive frame, Loss with the negative frame, and Loss with positive frame). Research participants in this research are: nonprofessional investor and professional investor. In this experimental research, the researcher uses web-based, experimental, and done by the researcher by asking the subject to open a website address designed by the researcher in interactive media.

513

RESULTS AND DISCUSSION

The Result of Paper-Based Experimental Research with Participant of College Student (Participant having Investment Knowledge)

Table 2 presents the number of participants in each scenario. The number of participants in this research is 274 people consisting of 154 participants from nonprofessional investors and 120 participants from professional investors. Participant distribution for each scenario is shown in Table 2. Table 3 illustrates demographic participants of professional investors and nonprofessional investors.

Scenario No.	Type of Information Presentation Pattern	Information Order	Type of Framing	Number of Participants (Nonprofesional)	Number of Participants (Profesional)
1.	Step by Step	Good News followed by Bad News	Positive Frame–Negative Frame		
2.	Step by Step	Good News followed by Bad News	Negative Frame–Positive Frame	42	30
3.	Step by Step	Bad News followed by Good News	Negative Frame–Positive Frame		
4.	Step by Step	Bad News followed by Good News	Positive Frame–Negative Frame	41	30
5.	End of Sequence	Good News followed by Bad News	Positive Frame–Negative Frame		
6.	End of Sequence	Good News followed by Bad News	Negative Frame–Positive Frame	37	30
7.	End of Sequence	Bad News followed by Good News	Negative Frame–Positive Frame		
8.	End of Sequence	Bad News followed by Good News	Positive Frame–Negative Frame	34	30
Number of Participants				**154 People**	**120 People**

Table 2.
The Number of Experimental Research Participants

No.	Description	Percentage (%)
Panel A: Professional Investor		
1.	**Age**	
	< 25 years old	32%
	25 – 34 years old	44%
	35 – 44 years old	18%
	45 – 54 years old	3%
	>54 years old	3%
		100%
2.	**Investment Experience**	
	< 5 years	60%
	5 – 10 years	37%
	>10 years	3%
		100%
3.	**Education Level**	
	Diploma	12%
	Bachelor	77%
	Master	7%
	Doctor	1%
	Others	3%
		100%
3.	Gender	
	Male	44%
	Female	56%
		100%
	Panel B: Nonprofessional Investor	
1.	**Gender**	
	Male	23%
	Female	77%
		100%
2.	**Age**	
	< 21 years old	32%
	21 – 22 years old	68%
		100%
3.	**Have you taken the Investment Management Course?**	
	Has taken an investment management course	100%
	Not Yet Taking Investment Management Courses	0%
		100%

Table 3.
Description of Experimental Research Participants

The result of experimental research with nonprofessional Investor

Table 4 illustrates the research result that tests the difference in stock rating on a step-by-step presentation pattern. This research using two scenarios (the first scenario using information items number 1 through number 4, and the second scenario using information item number 5 through number 8). The result related to good news (the first scenario using information items number 1 through number 4) shows a significant difference of stock rating between good news - positive frame and good news - negative frame. A participant

who receives good news - positive frame will give higher judgment (Rp14.571) than a participant who receives good news - negative frame (Rp11.238).

Information	Number of Participants	Framing	Average	t	Sig.
Good News (Item	42	Positive Frame	14.571	3,523	0,001
information number 1 – 4)	42	Negative Frame	11.238		
Bad News (Item	41	Negative Frame	12.536	-1,012	0,317
information number 1 – 4)	41	Positive Frame	13.634		
Bad News (Item	42	Negative Frame	11.571	-1,797	0,080
information number 5 – 8)	42	Positive Frame	13.619		
Good News (Item	41	Positive Frame	15.878	3,135	0,003
information number 5 – 8)	41	Negative Frame	12.609		

Table 4. The Result of Paired Sample t-test Processing – Step by Step Presentation Pattern and Framing Effect

The result related to good news information (the second scenario using information items number 5 through number 8) shows a significant difference of stock rating between good news - positive frame and good news - negative frame in a step by step presentation pattern. A participant who receives good news - positive frame will give higher judgment (Rp15.878) than a participant who receives good news - negative frame (Rp12.609). This research shows that participants will give higher judgment for good news - positive frame than good news - negative frame in the step by step presentation pattern.

Table 4 also presents the research result of stock rating in a step-by-step presentation pattern for bad news - positive frame and bad news - negative frame. This research using two scenarios (the first scenario using information items number 1 through number 4, and the second scenario using information item number 5 through number 8). The result related to bad news shows no significant difference in investment decisions between bad news - negative frame and bad news - positive frame. The participant who receives bad news - the negative frame will give lower judgment (Rp12.536) than the participant who receives bad news - positive frame (Rp13.634).

The result related to bad news information shows a significant difference in stock rating between bad news - negative frame and bad news - positive frame. A participant who receives bad news information in the negative frame will give lower judgment (Rp11.571) than a participant who receives bad news information positively (Rp13.619). The result related to bad news information shows the result that is not consistent.

Table 5 demonstrates a research result that tests the difference in stock rating at the end of the sequence presentation pattern. This research using two scenarios (the first scenario using information items number 1 through number 4, and the second scenario using information item number 5 through number 8). Different tests related to good news information show a significant difference in stock rating between good news information in positive frame and good news information in a negative frame. A participant who

receives good news information in the positive frame will give higher judgment (Rp13.540) than a participant who receives good news information in a negative frame (Rp11.216).

Information	Number of Participants	Framing	Average	T	Sig.
Good News	37	Positive Frame	13.540	2,251	0,031
	37	Negative Frame	11.216		
Bad News	34	Negative Frame	10.588	-1,032	0,309
	34	Positive Frame	11.764		
Bad News	37	Negative Frame	10.729	-2,074	0,045
	37	Positive Frame	13.216		
Good News	34	Positive Frame	14,647	4,069	0,000
	34	Negative Frame	10.294		

Table 5.
The Result of Paired Sample t-test Processing – End of Sequence Presentation Pattern and Framing Effect

Different test results related to good news information show a significant difference in stock rating between good news information in a positive frame and good news information in a negative frame at the end of the sequence presentation pattern. The participant who receives good news information positively will give higher judgment (Rp14.647) than the participant who receives good news information in a negative frame (Rp10.294). The result of the difference test related to good news information shows a consistent result. This research shows that participants give higher ratings for good news information in a positive frame than good news information in the negative frame in the end of the sequence presentation pattern.

Table 5 also presents the research result testing difference of stock rating at the end of sequence presentation pattern for bad news information in a positive frame and bad news information in a negative frame. The result related to bad news information shows no significant difference in stock rating between bad news information in negative frame and bad news information in a positive frame. The participant who receives bad news information in the negative frame will give lower judgment (Rp10.588) than the participant who receives bad news information in a negative frame (Rp11.764).

The result related to bad news information shows a significant difference in stock rating between bad news information in negative frames and bad news information in a positive frame at the end of the sequence presentation pattern. The participant who receives bad news information in the negative frame will give lower judgment (Rp10.729) than the participant who receives bad news information positively (Rp13.216). The result related to bad news information shows the result that is not consistent.

Table 6 demonstrates the research result of different tests on good news - positive frame followed by bad news - negative frame compared to bad news - negative frame followed by good news - positive frame in step-by-step presentation pattern. The research result shows a difference in stock rating on good news - positive frame followed by bad news - negative

frame compared to bad news - negative frame followed by good news - positive frame. The research result also shows that participants who receive good news - positive frame followed by bad news - negative frame will give lower judgment (Rp11.571) than participants who receive bad news - negative frame followed by good news - positive frame (Rp15.878). This research result shows the existence of the recency effect in the step by step presentation pattern.

Presentation Pattern	Type of Information	Type of Framing	Number of Participants	Average	t	Sig.
Step by Step	*Good News – Bad News*	Positive Frame – Negative Frame	42	11.571		
	Bad News – Good News	Negative Frame– Positive Frame	41	15.878	-3,953	0,000
Step by Step	*Good News – Bad News*	Negative Frame– Positive Frame	42	13.619		
	Bad News – Good News	Positive Frame– Negative Frame	41	12.609	0,794	0,430
End of Sequence	*Good News – Bad News*	Positive Frame– Negative Frame	37	10.729		
	Bad News – Good News	Negative Frame– Positive Frame	34	14.647	-3,231	0,002
End of Sequence	*Good News – Bad News*	Negative Frame– Positive Frame	37	13.216		
	Bad News – Good News	Positive Frame– Negative Frame	34	10.294	2,500	0,015

Table 6.
The Result of Independent Sample t-test Processing – Evidence Order Effect, Presentation Pattern, and Framing Effect

Table 6 presents the research result of different tests on good news -negative frame followed by bad news - positive frame compared to bad news - positive frame followed by good news - negative frame in the step-by-step presentation. The research result shows no difference in stock rating on good news - negative frame followed by bad news - positive frame compared to bad news - positive frame followed by good news and a negative frame in a step-by-step presentation pattern. The research result also shows that participants who receive good news - the negative frame followed by bad news - positive frame will give

higher judgment (Rp13.619) than a participant who receives bad news - positive frame that is followed by good news - negative frame (Rp12.609).

Table 6 presents the research result of the different tests on good news - positive frame followed by bad news - negative frame compared to bad news - negative frame followed by good news - positive frame at the end of sequence presentation pattern. The research result shows that there is a difference of the stock rating average on good news information scenario in a positive frame that is followed by bad news information in the negative frame compared to bad news information in a negative frame that is followed by good news information in the positive frame at the end of sequence presentation pattern. The research result also shows that participants who receive good news - positive frame that is followed by bad news - negative frame will give lower judgment (Rp10.729) than participants who receive bad news – negative frame followed by good news – positive frame (Rp14.647). This research result shows the existence of a recency effect on the end of a sequence presentation pattern.

Table 6 presents the research result of different tests on good news -negative frame followed by bad news - positive frame compared to bad news - positive frame followed by good news - negative frame at the end of sequence presentation pattern. The research result shows a difference in average stock rating on good news - negative frame followed by bad news - positive frame compared to bad news - positive frame followed by good news - negative frame at the end of sequence presentation pattern. The research result also shows that participant who receive good news - a negative frame that is followed by bad news - positive frame will give higher judgment (Rp13.216) than a participant who receives bad news - a positive frame that is followed by good news - the negative frame will give lower judgment (Rp10.294).

The result of experimental research with Professional Investor

Table 7 illustrates the research result that examines the difference in stock rating in a step-by-step presentation pattern. This research using two scenarios (the first scenario using information items number 1 through number 4, and the second scenario using information item number 5 through number 8). The result related to good news information shows no significant difference in stock rating between good news - positive frame and good news - negative frame. The rating average of corporate stock by participants shows that the average corporate stock with good news information in a positive frame (Rp14.500) is higher than the average of corporate stock with good news information in a negative frame (Rp12.714). Although participants who receive good news information with a positive frame are higher than those who receive good news information with a positive frame, this difference is not significant. It shows that participants who have knowledge and experience do not get the framing effect.

The difference test result related to good news information shows no significant difference in stock rating between good news information in positive frame and good news information in a negative frame in a step-by-step presentation pattern. The rating average of corporate rate with good news information in a positive frame (Rp17.267) is higher than the average corporate stock with good news information in a negative frame (Rp14.333). The result of different tests related to good news information shows a consistent result. This research result shows that participants will give higher ratings for good news information in a positive frame than good news information in a negative frame in a step-by-step presentation pattern.

Table 7 also demonstrates the research result that tests the difference of stock rating in a step-by-step presentation pattern for bad news information in a positive frame and bad news information in a negative frame. Different tests related to bad news information show a significant difference in investment decisions between bad news information in negative frame and bad news information in a positive frame. The rating average of corporate stock by participants shows that the average corporate stock with bad news information in a negative frame (Rp11.500) is statistically different from the average of corporate stock with bad news information in a positive frame (Rp15.143).

Information	Number of Participants	Framing	Average	t	Sig.
Good News (Item information number 1 – 4)	16	Positive Frame	14.500	0,945	0,353
	14	Negative Frame	12.714		
Bad News (Item information number 1 – 4)	16	Negative Frame	11.500	-2,445	0,023
	14	Positive Frame	15.143		
Bad News (Item information number 5 – 8)	15	Negative Frame	12.467	-2,880	0,008
	15	Positive Frame	17.133		
Good News (Item information number 5 – 8)	15	Positive Frame	17.267	1,499	0,145
	15	Negative Frame	14.333		

Table 7.
The Result of Paired Sample t-test Processing – Step by Step Presentation Pattern and Framing Effect

Different tests related to bad news information (shows that there is a significant difference in stock rating between bad news information in negative frames and bad news information in a positive frame. The rating average of corporate stock by participants shows that the average corporate stock with bad news information in negative frame (Rp12.467) is lower than the average of corporate stock with bad news information in a positive frame (Rp17.133). The result of the difference test related to bad news information shows a consistent result.

Table 8 presents the research result that tests the stock rating at the end of the sequence presentation pattern. Different tests related to good news information show a significant difference in stock rating between good news information in positive frame and good news information in a negative frame. The rating average of corporate stock by participants shows that the average corporate stock with good news information in a positive frame (Rp13.540) is higher than the average of corporate stock with good news information in a negative frame (Rp11.216).

The difference test result related to good news information shows no significant difference in stock rating between good news information in the positive frame and good news information in the negative frame at the end of the sequence presentation pattern. The rating average of corporate stock by participants shows that the average corporate stock with good news information in negative frame (Rp13.000) is higher than the average of corporate stock with good news information in a positive frame (Rp14.571). The result of the difference test related to good news information shows consistent results. This research

result shows that participants give higher ratings for good news information in the negative frame than good news information in the positive frame in the end of the sequence presentation pattern.

Information	Type	Number of Participants	Framing	Average	t	Sig.
Good News	A	16	Positive Frame	13.000	-1,157	0,257
	B	14	Negative Frame	14.571		
Bad News	C	15	Negative Frame	15.933	-0,405	0,688
	D	15	Positive Frame	16.600		
Bad News	A	16	Negative Frame	13.000	-2,137	0,041
	C	15	Positive Frame	15.933		
Good News	B	14	Positive Frame	14.571	-1,231	0,229
	D	15	Negative Frame	16.600		

Table 8. The Result of Paired Sample t-test Processing – End of Sequence Presentation Pattern and Framing Effect

Table 8 also presents the research result that tests the difference of stock rating at the end of sequence presentation pattern for bad news information in positive frame with bad news information in a negative frame. The difference test result related to bad news information shows that there is no significant difference of stock rating between bad news information in negative frame and bad news information in a positive frame. The rating average of corporate stock by participants shows that the average corporate stock with bad news information in a negative frame (Rp15.933) is not statistically different compared to the average of corporate stock with bad news information in a positive frame (Rp16.600).

The difference test result related to bad news information shows a significant difference in stock rating between bad news information in the negative frame and bad news information in the positive frame at the end of the sequence presentation pattern. The rating average of corporate stock by participants shows that the average corporate stock with bad news information in negative frame (Rp13.000) is lower than the average of corporate stock with bad news information in a positive frame (Rp15.933). The result of the difference test related to bad news information shows consistent results.

Table 9 presents the research result of the different tests on good news information scenario in a positive frame followed by bad news information in a negative frame compared to bad news information in a negative frame followed by good news information in a positive frame in a step-by-step presentation pattern. The research result shows a difference of stock rating average on good news information scenario in a positive frame followed by bad news information in a negative frame compared to bad news information in a negative frame followed by good news information in a positive frame. The research result also shows that the average stock rating on good news information scenario in a positive frame followed by bad news information in a negative frame (Rp11.500) is lower than bad news information in a negative frame followed by good news information in the

positive frame (Rp17.267). This research result shows the existence of the recency effect in the step by step presentation pattern.

Type of Information	Type of Framing	Number of Participants	Average	t	Sig.
Good News – Bad News	Positive Frame–Negative Frame	16	11.500		
Bad News – Good News	Negative Frame–Positive Frame	15	17.267	-3,965	0,000
Good News – Bad News	Negative Frame–Positive Frame	14	15.143		
Bad News – Good News	Positive Frame–Negative Frame	15	14.333	0,408	0,686
Good News – Bad News	Positive Frame–Negative Frame	16	13.000		
Bad News – Good News	Negative Frame–Positive Frame	15	15.933	-2,137	0,041
Good News – Bad News	Negative Frame–Positive Frame	14	14.571		
Bad News – Good News	Positive Frame–Negative Frame	15	16.600	-1,231	0,229

Table 9.
The Result of Independent Sample t test Processing – Evidence Order Effect, Presentation Pattern, and Framing Effect

Table 9 presents the research result of a different test on good news information scenario in a negative frame followed by bad news information in a positive frame compared to bad news information in a positive frame followed by good news information in a negative frame step-by-step presentation pattern. The research result shows that **there is no difference** of stock rating average on good news information scenario in a negative frame that is followed by bad news information in the positive frame compared to bad news information in a positive frame that is followed by good news information in the negative frame in a step by step presentation pattern. The research result also shows that the average of stock rating on good news information scenario in a negative frame that is followed by bad news information in a positive frame (Rp15.143) is not statistically different compared to bad news information in a positive frame that is followed by good news information in a negative frame (Rp14.333).

Table 9 presents the research result of a different test on good news information scenario in a positive frame followed by bad news information in a negative frame compared to bad news information in a negative frame followed by good news information in a positive frame. The sequence presentation pattern. The research result shows a difference of stock rating average on good news information scenario in a positive frame followed by bad news information in a negative frame compared to bad news information in a negative frame followed by good news information in a positive frame of sequence presentation pattern. The research result also shows that the average stock rating on good news information scenario in the positive frame is followed by bad news information in a negative frame (Rp13.000) is lower than bad news information in a negative frame followed by good news information in the positive frame (Rp15.933). This research result shows the existence of the recency effect in the end sequence presentation pattern.

Table 9 presents the research result of the different tests on good news information scenario in a negative frame followed by bad news information in a positive frame compared to bad news information in a positive frame followed by good news information in a negative frame at the end of the sequence presentation pattern. The research result shows that there is a difference in stock rating average on good news information in a negative frame followed by bad news information in a positive frame compared to bad news information in a positive frame followed by good news information in a negative frame at the end of sequence presentation pattern. The research result also shows that the average stock rating on good news information scenario in a negative frame followed by bad news information in a positive frame (Rp14.571) is lower than bad news information in a positive frame followed by good news information in a negative frame (Rp16.600).

CONCLUSION

In the previous research that has been done, the researcher only considered factors: evidence order, presentation pattern, information type, and framing effect partially. This research is expected to develop the belief adjustment model in investment decisions by considering factors: evidence order, presentation pattern, information type, framing effect, and Investment Decision Frame. The research results show that evidence order, presentation pattern and information type can affect investor judgment, and investment decision frame partially affects investor judgment.

The research results on nonprofessional investors, and the step-by-step and end-of-sequence presentation patterns are as follows: First, there is a difference in decisions between good news information that is framed positively and framing negatively. The results show that investors will respond higher to good news with positive framing than those with negative framing. Second, there is a difference in the decisions between bad news information that is filtered positive and filtered negatively. The results show that investors will respond more to bad news with positive framing than those with negative framing. Third, the results on nonprofessional investor participants also show that investors will respond higher if investors receive good news (on negative framing) following bad news (on positive framing) compared to investors receiving bad news (on positive framing) following good news (on negative framing) in the end-of-sequence presentation pattern.

The research results on professional investors and the step by step and end of sequence presentation patterns are as follows: First, there is a difference in the decisions between bad news information that is filtered positive and that is filtered negatively. The results show that investors will respond more to bad news with positive framing than those with

negative framing. Second, the results on professional investor participants also show that investors do not have a different response if investors receive good news (on negative framing) following bad news (on positive framing) compared to investors receiving bad news (on positive framing) following good news (on negative framing) at the end of the sequence pattern. The results indicate that professional investors are less adherent to framing effects than nonprofessional investors.

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