THE EFFECT OF INFORMATION SEQUENTIAL AND PERSONALITY ON THE INVESTOR BELIEF REVISION  
(AN EXPERIMENTAL STUDY IN DECISION MAKING)  

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ABSTRACT  
This research examined that (1) there is a recency effect on investor belief revision from mix information that presented sequentially, (2) there is an anchoring effect on investor belief revision from mix information that presented sequentially, and (3) there is an interaction between the order of information and the tolerance of ambiguity  
personality in affecting the revision belief of investors. Belief adjustment theory is employed as the main framework of this research. Experiment method 2x2 between subject used in this research and the subject that use is 75 students postgraduate Universitas Hasanuddin (UNHAS) accounting majors. The hypothesis tested by using Independent Sample t-test, Kruskal-Wallis, ANOVA test. The results show that there are a recency effect and anchoring effect on investor belief revision from mix information that presented sequentially. Meanwhile, there is no interaction between sequence information and personality-ambiguity tolerance on investor belief revision. This study gives attention to the company's management to consider the sequencing of the presentation of information because the sequence of presentation can be as important as the content of the information presented to investors. If the information presented sequentially and mix, the company's management should present information in negative information early and positive information in the last section. The management of the company may consider the sequencing of the presentation of information as a strategic tool in communicating management planning to the various shareholders. Investors should realize that their perception could be influenced by the company's strategy of presenting information. Awareness of the influence of the order and how factors such sequence can influence a person's beliefs revision process allows investors to be more careful in assessing the information presented company.  

Keywords : Belief-adjustment theory, recency effect, anchoring effect, mix information and personality-ambiguity tolerance.  

1. INTRODUCTION  
The belief-adjustment theory proposed by Hogarth and Einhorn (1992) shows the behavior of individual reactions to the order and timing of two differences information. This theory predicts that when two items of information available have different charges (information that is mixed), namely confirmed-unconfirmed or good news-bad news (+/-), and presented in a sequence, the individual tends to do a revision of the initial belief in making a decision. Hogarth and Einhorn (1992) found that in certain circumstances individuals tend weighting the current information is more important than the previous information, or in other words the
recency effect occur. The recency effect causes a person tends to take a decision that is bias; because the decision was based on the latest information received is not on the substance of the information itself. Recency effect describes the end result of the reaction of investors to revise their beliefs but recency effect does not explain why investors make revisions that belief. The anchoring effect can provide an explanation of why investors make revisions that belief. The Anchoring effect explains why investors revise his belief in accordance with the predictions of recency effect. Based on the belief theory of adjustment, the factors that cause the recency effect are the anchor. Anchor is the initial belief. Theory says that anchor large (small) will be decreased (increased) due to negative information (positive) compared to anchor a small (large).

Regency effect and anchoring effect is part of the effect of the order is predicted to occur in the process of revision of the conviction or judgment made by the investor if the information presented sequentially and is a mixture of (negative and positive). Based on the science of psychology, individual psychological differences would affect human information processing. There are two dimensions that distinguish individuals in information processing that is the dimension of cognitive style and personality dimensions (Pratt 1980 Nasution and Supriyadi 2007).

Based on the above background, the study aims to determine the effect of the order of information (recency effect and anchoring effect) and the interaction between personality with the sequence information on the revision of investor belief in the presentation of information in sequence and mix. Individual psychology, personality dimensions using a tolerance for ambiguity as the indicator (adopted from Mac.Donald, 1970).

This study is an experimental research that replicates research of Nasution and Supriyadi (2007) and Alvia (2009). Nasution and Supriyadi (2007) use a sequence of evidence as an independent variable, cognitive style and personality as moderator variables, in audit setting. Alvia (2009) using a sequence of evidence as an independent variable, cognitive style as a moderator variable, in the setting of capital markets. This study uses a sequence of evidence as an independent variable, personality as a moderator variable, in the setting of capital markets. In addition to the use of moderator variables and setting capital markets, another thing to be a difference in this study with previous research is the use of Kruskal Wallis-Test as an analytical tool. Kruskal-Wallis test is an analysis tool for non-parametric studies. Kruskal-Wallis test was used to solve possible problems of data that is not normal (not normally distributed) or other parametric statistical assumptions that often occurs in small sample experimental research.

2. LITERATURE REVIEW

2.1. Recency effect and investor belief revision

Hogarth and Einhorn (1992) propose a belief adjustment model, which implies that individual process information in a sequential manner will use the process of anchoring and adjustment. In particular, the model adjustment of belief predict no order effects for evidence/information that is consistent (overall positive or negative overall) but the recency effect (sequence) occurs when individuals obtain evidence that diverse (some negative and some positive).

Orders effects occur when individual make decision different after receiving evidence/ information in a different order. In the evidence order, the nature of the evidence is a mixture of between the confirmed (positive) and disconfirmed (negative) information. If the initial information, in order, has the greatest impact on an individual's belief, the effect of the order is called primacy effect. Conversely, if the latest information gives the greatest effect, it is called the recency effect.
The phenomenon of order effect occurs when evaluating of new evidence, and subsequent adjustments based on additional evidence insufficient. Hogarth and Einhorn (1992) adopted the general concept including a bias adjustment belief that occurred and establish a framework of psychology known as the model of belief adjustment. This model predicts the recency when evaluating individual short series of complex evidence and proof of a compound or mixture (positive and negative evidence). Short series evidence consists of a maximum of 12 items of evidence. The complexity associated with task familiarity and long items of evidence. Evidence of a compound or mixture is comprised of items of evidence of positive and negative items. Model of Hogarth and Einhorn (1992) predict that the decision is made after any evidence obtained, and tend to find recency effect. This response model known as Step by Step (SBS).

The phenomenon of recency effect is also supported in several studies. Tubbs et al. (1990) examined whether the sequence of evidence has a significant effect on auditor belief revision. The results indicate that the auditor's judgment and decision only gives emphasis on the order of the most recent evidence although the significance level of evidence is not necessarily high. Messier (1992) provide evidence that the staff of auditors who accepts the evidence is complex and diverse (negative and positive information) with sequential expression pattern, then the recency effect will occur.

Asare (1992) also provide similar evidence of the emergence of recency effect on managers and related audit partner judgment going concern when the pattern of evidence sequentially (step by step). Tuttle et al. (1997) examined the effect of the order on the efficiency of the market and concluded that the individual investors who receive four instructions / evidence shows the influence of recency.

It is also shown by Tubbs et al. (1993), that the recency effect occurs when an individual accepts the evidence is inconsistent, although individuals have been given training to understand the task and provide a better assessment of the evidence but the recency effect remains found in these conditions. Research on order effect in Indonesia have been carried out by Hartono (2004), Suartana (2006), Nasution and Supriyadi (2007), Alvia (2009, Alvia and Sulistiawan (2009), and Almilia (2010),

Based on these arguments, the first research hypothesis can be stated as follows:

H1: Occurred recency effect on investor belief revision of the presentation of information that is a mixture and are presented sequentially

2.2. Anchoring effect and investor belief revision

Findings Ashton and Ashton (1988) showed a recency effect and anchoring effect. Belief adjustment theory predict recency effect and anchoring effect occurs on a characteristic arrangement of information that is a mixture of (positive and negative) and is presented in stages or Step by Step (SBS).

The end result of the reaction of investors to revise their beliefs can be explained by the recency effect. Hartono (2004) stated that the recency effect describes how investors react to the order of evidence or information mix (proof of negative and positive) which latter information has a greater impact than the first information on the revision of investors' belief. This means that the recency effect does not explain why investors do belief revision. An explanation of why investors revise their belief exists in the anchoring effect. Anchor is the initial belief. Based on the belief adjustment theory, the factors that cause the recency effect are the anchor. The theory says that anchor large (small) will be decreased (increased) due to negative information (positive) compared to anchor a small (large), as shown in Figure 1. Anchoring effect explains why investors revise his belief in accordance with the predictions of recency effect. Anchoring effect explains the cause of recency effect,
so that the condition of the presentation of information in sequence and mix, is predicted will be occurred of recency effect and anchoring effect.

![Diagram: Anchoring Effects]

Fig.1 Contrast or Anchoring Effects

Anchoring effect showed that the same negative information, a large anchor decreases further than the small anchor. Instead of positive same information has a positive influence is stronger in small compared to anchor large anchor. Size of anchoring effect depends on the amount or value of the anchor. Giving the same negative information, led to a reduction of small anchor is not as large as decline big anchor. This means that the drop in belief caused negative information is larger on a big anchor than a small anchor.

Hogarth and Einhorn (1992) provides a rationalization on the statement that the same negative evidence causes a greater drop in anchor higher than the low anchor, namely that it is the behavior of individuals who have a tendency to think that low anchor already at a low position and does not will be down as much as if the anchor is high. Why the evidence order affects behavior? Belief adjustment theory states that behavioral is caused by the level of initial belief (anchoring effect), although Hartono (2004) found little support for the anchoring effect.

Based on the above arguments, the second hypothesis of this study can be formulated as follows.

H2: Occurred anchoring effect on investor belief revision of the presentation of information which is mixture and is presented sequentially

2.2 Personality-tolerance for ambiguity

According to Nasution and Supriyadi (2007) that personality is defined as a collection of general behavior or beliefs of the individual that is relatively stable over time and in different circumstances. The studies accounting using this variable, often with a focus on tolerance for ambiguity as measuring dimensions of personality, among others: Gul 1984, McGhee, 1978, and (Wright and Davidson, 2000, Lamberton, Fedorowitz, and Roohani 2005, Hartmann 2005, Nasution and Supriyadi 2007).

Individuals with a low tolerance for ambiguity (intolerance for ambiguity) will likely see a thing as "black-white" only, and is easy to replace or modify his beliefs when it receives new information, if the information is contrary to the information previously obtained. Conversely, individuals with a high tolerance for ambiguity, tend to see things more clearly, and do not easily change his beliefs when it receives new information that is contrary to previous information. Thus, the ambiguous information (confirmation-disconfirmation or otherwise) are presented in individuals with different tolerance for ambiguity that would produce a
different consideration because of their differences in how to process and interpret the information.
The same information will produce different considerations among investors with a low tolerance for ambiguity and investors with a high tolerance for ambiguity. So that the three hypotheses can be formulated as follows.

H3: There is interaction between tolerance of ambiguity and the order of the evidence presented and will affect the consideration (revised beliefs) are taken by investors. Investors with a high tolerance for ambiguity will revise his belief smaller than investors with a low tolerance for ambiguity.

3. METHODOLOGY

3.1. Research Design

This research used experimental method 2 x 2 factorial design between subject following the model Alvia (2009), Nasution and Supriyadi (2007), and Hartono (2004). Between subject design is used to avoid the effect of demand that is subject to know the direction of condition or treatment given. Treatment factors are the order of presentation of information 2 levels by its nature (bad news and good news), and tolerance for ambiguity 2 levels (low and high tolerance for ambiguity).

This research applies belief-adjustment models in the field of financial accounting in particular using the setting capital markets, and adopting research design Hogarth and Einhorn (1992). There are two modes of response in the theory of belief adjustment that is End of Sequence (EOS) and a Step by Step (SBS). This study uses the response mode step-by-step (SBS). The combination of positive and negative information with various possible sequences and types of information is referred to as mixture information. Sequence information was manipulated between subjects. Subjects received two pieces of negative information is followed by two pieces of positive information E(--++) or two pieces of positive information followed by two pieces of negative information E(+-++).

3.2 Samples and Population

Participants in this experiment are the Master of Accounting Studies Program students at the Faculty of Economics, University of Hasanuddin who has programmed Course Market Based Accounting Research (MBAR). Participants in this study were 75 people chosen randomly. Randomization was performed to control the individual variation potential nuisance (variables of age, gender, and previous experience).

The reasons for the selection of students as subjects of the experiment is considered to have a basic knowledge, rather than relying on the experience. The fundamental information presented is familiar because the information material on the fundamental information they have learned. Students who are subject experiment treated as a beginner investor or unsophisticated investors (Habbe 2006). The used of student as subjects of experiment is also done by some previous researchers (Alvia, 2009, Nasution and Supriyadi 2007, and Habbe 2006).

Habbe (2006) stated that no benchmark of how the number of participants in an experiment, but applies the basic law that the larger the sample, the better because the power of the test increases. Based on some research that became the reference of this study, the number of subjects in one group or the group is 15 to 20 people, while the number of subjects or respondents of this study as many as 85 people. Of the 85 students who responded, 10 of them did not pass the manipulation check, so that the number of respondents who used as many as
75 people and divided into 2 groups. Groups E(++−−) as many as 36 people and groups E(−−+++) as many as 39 people.

3.3. Variable and Measurement

a. Independent Variable

Information Order

The order of presentation of information is the order of the information published or issued by companies as a basis for investors to make stocks investment decisions. This study manipulates the order of presentation of the information gradually or Step by Step, and presents the information in a mixture. Information mix is a combination of information that is positive (good news) and negative (bad news). The sequence of information is a sequence of stages or additional information to be received by each subject. Four additional information presented on the first group are 1) revenue increased, 2) liquidity and profitability ratios improved, 3) net income decreased, and 4) is the lowest sale. The same additional information presented on the second groups, but in the opposite direction. The subject will receive a case of experiments with one of two configurations, namely sequence E(++) or E(−−). The order of presentation of the nature of the information is divided into two, namely confirmatory information / good news (++) and disconfirmatory information / bad news (−−).

Recency effect

Recency effect is part of the effect of the order is predicted in theory Belief Adjustment. Recency effect is said to occur if the subject weighting the final sequence information is greater than the previous sequence information (early). In this experiment, the subjects said weighting the latest information is greater than the previous information if the revision of investor confidence (S4S0) in the group E(++−−) < Group E(−−++).

Anchoring effect

The anchoring effect is also part of the effect of the order is predicted in theory Belief Adjustment. The anchoring effect is said to occur when a large anchor (small) will be decreased (increased) due to negative information (positive) compared to a small anchor (large). In this case, the sequence E(++)−−, big anchor is S2 and small anchor is S3. Decrease S3 to S4 is not as big a decline S2 to S3 (S2S3> S3S4). In order E(−−++), a small anchor that is the S2 and big anchor is S3. Improved S3 to S4 is not as big an increase in S2 to S3 (S2S3> S3S4).

b. Moderator Variable

Personality-Tolerance for Ambiguity

Personality-Tolerance for Ambiguity is moderator variable in relationship between information order and investor belief revision. Nasution and Supriyadi (2007) defined personality as a collection of general behavior or beliefs of the individual that is relatively stable over time and in different circumstances. Personality, according to Indonesian dictionary, is the whole psychological and social reactions of an individual, the synthesis of emotional life and mental life.

Personality is generally focused on measuring the dimension tolerance for ambiguity as a personality. Tolerance of ambiguity is the ability to accept or interpret statement or ambiguous circumstances (inconsistent), for example, feel comfortable, or at least do not feel uncomfortable when facing complex social problems that are contrary to the principle of an individual. Ambiguity tolerance is measured using AT-20 instrument developed by Mac Donald (1970). There are 20 statements in instrument AT-20; subjects were instructed to give an answer right or wrong. The correct answer is given a value of 0 and a wrong answer rated...
1. Tolerance of ambiguity is lower when subjects received 1-10 points and a high tolerance for ambiguity if it gets the points 11-20.

c. Dependent Variable
In this experiment, the dependent variable is the revision of investor belief after evaluating the information presented in a mixture sequentially by the company. Subjects will receive four additionally information, and will take a decision every time receives the additional information by checking the level of confidence to invest on a questionnaire given. Confidence is calculated using continues scale from 0 to 100. Revised investor belief is calculated by subtracting the belief that the end of the initial conviction S4 - S0.

3.4. Research Instrument
Experimental Instruments adopted Alvia (2009) with adjustment scenario. The scenario consists of four parts. The first part is a stock investment case scenario that presents initial condition of the company; additional information is presented in sequence (two positive information followed two negative information on the group and the opposite in the two groups). Part two is a manipulation check, which aims to determine whether the subject has understood the information presented, or not.
Part three is the ambiguity tolerance questionnaire consisting of twenty statements to determine whether the subject has a high or low tolerance for ambiguity. Part four is a demographic questionnaire to find out the sex, years of college, GPA, and work experience.

<table>
<thead>
<tr>
<th>Experimental Condition</th>
<th>Information (1)</th>
<th>Information (2)</th>
<th>Information (3)</th>
<th>Information (4)</th>
<th>Final Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>Buy/No</td>
</tr>
<tr>
<td>Information order</td>
<td>E(++)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>Buy/No</td>
</tr>
<tr>
<td>Information order</td>
<td>E(−−++)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
S1,S2,S3,S4 : Belief revision of investor every time receive additional information
FD : Final Decision.

3.5. Data Analysis
The analysis technique used in this study is a t-test, Kruskal-Wallis, and Anova Two Way. Hypothesis one and two analyzed using t-test and strengthened by Kruskal-Wallis. The Third hypotheses were analyzed using t-test and Anova Two Way.
Hypothesis is to be supported if the average revision of the belief (S4 - S0) in group 1 (the group receiving the order information E(++) smaller and statistically significant as compared to an average revision of belief (S4 - S0) in group 2 (group receiving the order information E(−−++)). Mathematically can be written revised average group beliefs E(++) < E(−−++).
Hypothesis two is to be supported if the first group, the average decline in belief revision from S2 to S3 is greater than the average decline in belief revision from S3 to S4. The difference in belief revision S2S3 is greater than the difference in belief revision on S3S4. In group 2, the average increase in belief revision from S2 to S3 is greater than the increase in belief revision from S3 to S4. Differences in belief revision S2S3 is greater than the difference in belief revision S3S4. Mathematically it can be written (S2S3) > (S3S4).
Hypothesis three is to be supported if there is interaction between tolerance of ambiguity and the order of evidence, and influence the revision of confidence taken by investors. Subjects
who have a high tolerance for ambiguity (AT), revising his belief is smaller than subjects who have a low tolerance for ambiguity. Subjects with a high tolerance for ambiguity have S4-S0 smaller than subjects with low tolerance for ambiguity.

3.6. Experimental Procedure
Implementation of the experiment was conducted in two different groups namely E(++) and E(---). Each of these subjects in the group will receive the initial narrative contains a general description of the Company with a score initial assessment of the performance of the company (as an initial anchor (S0)) is 50. Determination of the number 50 as an initial anchor based on the consideration that the number is the balance point between the lowest point 0 and the highest 100, so if the respondent had ratings below the anchor (40-0) or above (60-100) can be accommodated. Initial narrative is presented in the form of a general description of the company, which is expected to stimulate respondents to agree on the middle number, that is 50. In addition, each subject in the group will receive four of additional information in sequence (S1, S2, S3, and S4) according to the experimental group been determined. In sheet instruments, the type of information that is presented in the form of fundamental information presented by its nature is good news and bad news E(++) or E(---). The order of the information presented is a mixture of E(++) which have two groups as shown in Table 1, namely: E(++) and E(---). Whenever the provision of additional information, subjects were asked to state how much confidence to invest in companies based on the additional information. Furthermore, subjects were asked to make an investment decision to buy or not buy the shares contained in the scenario of investment decision. The investment decision is needed to see whether the investment decisions of each group ideal or not ideal. The investment decision is to be ideal if the average of the subjects in the first group decided not to buy, and the groups two decided to buy. Further manipulation check given to the subject in the form of a questionnaire to determine the understanding of the subject on the information presented. After filling out the questionnaire checking manipulation, subjects were asked to fill instrument tolerance for ambiguity. At the end of the experiment, subjects were asked to fill out demographic data.

4. RESULT
4.1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Belief Revision</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4S0</td>
<td>75</td>
<td>-40.00</td>
<td>50.00</td>
<td>94.667</td>
</tr>
<tr>
<td>S2S3</td>
<td>75</td>
<td>-10.00</td>
<td>70.00</td>
<td>249.333</td>
</tr>
<tr>
<td>S3S4</td>
<td>75</td>
<td>0.00</td>
<td>40.00</td>
<td>122.667</td>
</tr>
<tr>
<td>AT</td>
<td>75</td>
<td>3.00</td>
<td>14.00</td>
<td>86.400</td>
</tr>
</tbody>
</table>

Source: Processed Data (2016).

Table 2 describes descriptive statistics of dependent variable, independent variable and moderator variable. Belief revision is S4-S0, S2S3 is the difference between S2 and S3, S3S4 is the difference between S3 and S4, and AT is a tolerance for ambiguity. Numbers of subjects in this study were 75 people.

<table>
<thead>
<tr>
<th>Information Order</th>
<th>N</th>
<th>Consideration Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S0</td>
</tr>
<tr>
<td>(++--)</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>(---)</td>
<td>39</td>
<td>50</td>
</tr>
</tbody>
</table>

Notes: S0 is initial anchor / initial information
S1, S2, S3, S4 is additional information presented orderly.
Table 3 shows the mean value of considering or belief revision each received additional information.

<table>
<thead>
<tr>
<th>Information Order</th>
<th>Ambiguity Tolerance (AT)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>E(++)-</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>E(--++)</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>24</td>
<td>51</td>
</tr>
</tbody>
</table>

Source: Processed Data (2016).

Table 4 shows the number of participant in each sel. There are 36 participants into the category of the order of evidence E(++)- and 36 participants into the category E(--++)). Whereas number of subjects into the category of high tolerance for ambiguity is 24 people and the number of subjects within a low tolerance for ambiguity is 51 people.

4.2. Hypothesis Testing

a. Testing of Hypothesis One

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36</td>
<td>-40.00</td>
<td>10.00</td>
<td>-11.11</td>
<td>14.497</td>
<td>2.416</td>
</tr>
<tr>
<td>2</td>
<td>39</td>
<td>-20.00</td>
<td>50.00</td>
<td>28.46</td>
<td>14.242</td>
<td>2.280</td>
</tr>
</tbody>
</table>

\[ t = -11.919, \alpha = 0.000 \]

Based on Table 5 shows that the average value of belief revision group 1 E(++)- is -11.11 with a standard deviation of 14.497 and the average standard error are 2.416. While the average score belief revision group 2 E(--++) is 28.46 with a standard deviation of 14.242 and the average standard error is 2.280. The average belief revision of group 2 is greater than the average revision of group 1. This difference is statistically significant with t values of -11.919 (1%).

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36</td>
<td>19.85</td>
</tr>
<tr>
<td>2</td>
<td>39</td>
<td>54.76</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

\[ \text{Chi-Square} = 49.019 \]

Tests with the Kruskal-Wallis test, as in Table 6 shows that the average ranking for the group E(++)- is 19.85 lower than the group E(--++) at 54.76. This ranking difference has a value of Chi-Square 49.019 with Asymp. Sig. 0.000. These results indicate there are differences in belief revision statistically significant between groups E(++)- and group E(--++). These results provide empirical evidence that occurred recency effect on investor belief revision of the presentation of information that is a mixture and are presented sequentially. Thus the first hypothesis is supported.
b. Testing of Hypothesis Two

Table 7. Group Statistics (anchoring effect)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2S3</td>
<td>75</td>
<td>-10.00</td>
<td>70.00</td>
<td>24.933</td>
<td>17.427</td>
<td>2.012</td>
</tr>
<tr>
<td>S3S4</td>
<td>75</td>
<td>0.00</td>
<td>40.00</td>
<td>12.266</td>
<td>9.666</td>
<td>1.116</td>
</tr>
</tbody>
</table>

\[ t = 5.504, \alpha = .000 \]

Source: Processed Data (2016).

Table 7 presents the averages decrease and increase belief revision of S2S3 (anchor1) is 24.933 with standard deviation is 17.427 and the average standard error is 2.012. For the average decrease and increase belief revision of S3S4 (anchor2) is 12.266 with a standard deviation 9.666 and the average standard error is 1.116. The difference of belief revision between two groups is significant \( t = 5504; p\text{-value}= 0.000 \). Thus it is said the average population is not the same.

The average decrease and increase of belief revision (difference) in the S2S3 (anchor1) is greater than the average decline and increase of belief revision (difference) in the S3S4 (anchor2), and from these results shows that there are significant differences between the average the difference in belief revision on S2S3 and an average difference of belief revision in S3S4. It can be said that the results explain that the anchoring effect occurs.

Table 8. Anchoring effect test used Kruskal-Wallis

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchor 1</td>
<td>75</td>
<td>92.82</td>
</tr>
<tr>
<td>Anchor 2</td>
<td>75</td>
<td>58.18</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td></td>
</tr>
</tbody>
</table>

<p>| |</p>
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<th></th>
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<tbody>
<tr>
<td>Chi-Square</td>
</tr>
<tr>
<td>df</td>
</tr>
<tr>
<td>Asymp. Sig</td>
</tr>
</tbody>
</table>

Source: Processed Data (2016).

Kruskal-Wallis test showed that the average ranking for the group anchor1 is 92.82 and group anchor2 is 58.18. The test results demonstrate the value of Chi-Square 25 076 with Asymp. Sig. 0000. It can be concluded that there are differences in belief revision statistically significant between anchor1 and anchor2. This result documents that occurred anchoring effect on investor belief revision of the presentation of information which is mixture and is presented sequentially. Hypothesis 2 is supported.

c. Testing of Hypothesis Three

Table 9. Group Statistics (AT)

<table>
<thead>
<tr>
<th>AT</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>S4S0</td>
<td>24</td>
<td>10.00</td>
<td>23.03</td>
<td>4.70</td>
</tr>
<tr>
<td>ATLow</td>
<td>51</td>
<td>9.22</td>
<td>25.36</td>
<td>3.55</td>
</tr>
</tbody>
</table>

\[ t = 0.129, \alpha=0.898 \]

Source: Processed Data (2016).
For the average revision of the individual’s belief with a high tolerance for ambiguity is 10.00 with standard deviation is 23:03 and standard error is 4.70. Meanwhile the average individual belief revision with a low tolerance for ambiguity is 9.22 with a standard deviation of 25.36 and the average standard error was 3.55. Directions of relationship predicted by the hypothesis that investors with a high tolerance for ambiguity will revise his conviction smaller than investors with a low tolerance for ambiguity are not proven. The difference was not statistically significant with a value of t = 0.129 with alpha of 0.898. These results prove that there is no significant difference between the average revisions of the conviction of individuals with a high tolerance for ambiguity to an average revision of individual beliefs with a low tolerance for ambiguity.

### Table 10. Descriptive Statistics of Interaction

<table>
<thead>
<tr>
<th>Group</th>
<th>AT</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>E(++)-</td>
<td>AT high</td>
<td>-7.27</td>
<td>13.48</td>
<td>11</td>
</tr>
<tr>
<td>AT low</td>
<td>-12.80</td>
<td>14.86</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-11.11</td>
<td>14.49</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>E(-++)</td>
<td>AT high</td>
<td>24.61</td>
<td>18.98</td>
<td>13</td>
</tr>
<tr>
<td>AT low</td>
<td>30.38</td>
<td>11.13</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28.46</td>
<td>14.24</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>AT high</td>
<td>10.00</td>
<td>23.03</td>
<td>24</td>
</tr>
<tr>
<td>AT low</td>
<td>9.21</td>
<td>25.36</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.46</td>
<td>24.49</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

Source: Processed Data (2016).

Descriptive statistics of ANOVA test showed that the average revision confidence of subject at high AT (10.00) is greater than the average revision of subject at low TA (9.21). This means that the direction of the relationship predicted in the hypothesis that investors with a high tolerance for ambiguity will revise his conviction smaller than investors with a low tolerance for ambiguity is not proven.

### Table 11. Test of Between-Subjects Effects ANOVA Two-Way

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information order</td>
<td>22882.901</td>
<td>1</td>
<td>22882.901</td>
<td>111.728</td>
<td>.000</td>
</tr>
<tr>
<td>AT</td>
<td>.238</td>
<td>1</td>
<td>.238</td>
<td>.001</td>
<td>.973</td>
</tr>
<tr>
<td>Information Order*AT</td>
<td>518.125</td>
<td>1</td>
<td>518.125</td>
<td>2.530</td>
<td>.116</td>
</tr>
<tr>
<td>Error</td>
<td>14541.413</td>
<td>71</td>
<td>204.809</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) Dependent Variable: S4S0
b) R Square = .672 (Adjusted R Square = .658)

The ANOVA test show that the sequence of information provides F value of 111 728 and significant at 0.05 (p <0.05). This means that there is a significant difference in the average revision of belief between the group information sequential. Tolerance for ambiguity gives F value of 0.001 and is not significant at 0.05 (p> 0.05). This means that there is no significant difference between the average belief revisions of high AT and an average belief revision of low AT.

The result of the interaction between the information order and Tolerance for Ambiguity is F value of 2.530 and is not significant at 0.05 (p> 0.05). This means that there is no mutual influence or joint effect between the information order and tolerance for ambiguity on the average revision of belief. Tolerance for Ambiguity does not moderate the effect of the order of information on the revision of belief. Hypothesis 3 was not supported. Adjust R square of 0.658 means that the variability revision of belief can be explained by the variable sequence...
of information, Tolerance for Ambiguity, and the interaction between the information sequential and Tolerance for Ambiguity amounted to 65.8%.

5. DISCUSSION

a. Recency Effect and investor belief revision.

The test results showed that the average belief revision group 2 greater than the average belief revision group 1. These results also proved that there is a significant difference between the average belief revision group 1 and the average belief revision group 2 both t test and the Kruskal-Wallis test. Thus it can be concluded that there are recency effect on investor belief revision of the presentation of information that is a mixture and are presented sequentially. Belief adjustment theory states that when individuals obtain new evidence from available information, they will review his belief by using anchors and adjustment process. Recency effect describes how investors react to the evidence and are presented sequentially and mixture. Proving the hypothesis 1 support Theory of Belief Adjustment. In this study, four additional information (i.e. S1, S2, S3, and S4) are presented sequentially and mix, proven investors revise their belief whenever received new information based on the anchor and make adjustments.

From proving the hypothesis one show that investor belief revision tend to weight the latest information outweigh than the initial information so that recency effect occurs. The results straighten what it is documented by Ashton and Ashton (1988), Asare (1992), Nasution and Supriyadi (2007), and several other researchers. When investors are given information, which is a mixture of disconfirmation and confirmation (negative and positive), and are presented sequentially, then the investor will revise his conviction based on the order of presentation of information and not on the substance of the information. This because of investors gives higher weight on recent information presented or obtained. Investor behavioral that is weighted higher the latest information than the initial information is called recency effect.

In detail, this study supports the theory of belief adjustment proposed by Hogarth and Einhorn (1992) that people will revise his conviction when new evidence attained by using the anchor and adjustment. Similarly, it support research of Ashton and Ashton (1988), which indicates that the auditor reviews confidence will depend on the composition of the evidence received and the way the evidence is presented. Findings Ashton and Ashton (1988) indicates that the subject will easily change his conviction when new evidence is received, although behavioral decision theory in the literature show that in general people tend to avoid new evidence. This study also supports the testing of the presence of recency effects using an experimental design with setting capital market conducted by Alvia (2009) which showed that the effects are present in the stock investment decisions when accounting information and information non-accounting each contained good news and bad news (information mixtures) are presented sequentially. In essence, investors tend weighting the current information is more important than the previous information on the type of information that is a mixture of (a combination of good news and bad news).

b. Anchoring Effect and Investor belief revision.

Proving the hypothesis two done using independent samples t test and also strengthened by the Kruskal-Wallis test. The test results indicate that the hypothesis is supported. The average difference in belief revision S2S3 (anchor1) is greater than the average difference in belief revision S3S4 (anchor2), and from these results it is evident that there are the anchoring effect occurs. The test results corroborate the results obtained by Ashton and Ashton (1988) and Hartono (2004). It also shows that there anchoring effect on investor belief revision of the presentation of information that is a mixture and is presented sequentially. The anchoring
effect is proven can explain why the recency effect occurs as described Belief Adjustment theory that the factors that cause the recency effect is the anchor (initial beliefs). The theory says that large (small) anchor will be decreased (increased) due to negative information (positive) compared to anchor a small (large).

According to the table 4.6 in order E(+--), S2(+) is a large anchor in a larger decline due to the negative information that is S3 (-), compared to the decline of small anchor that S3(-) due to negative information that is S4 (-). The decline of 22.23 S2 to S3 is greater than the decrease in S3 to S4 at 12.50. Likewise, in order E(--+), S2(-) is a little anchor in a larger increase due to the positive information that S3(+) compared to an increase in large anchor that S3(+) caused positive information that S4(+). An increase of 27.44 S2 to S3 is greater than the increase in S3 to S4 of 12.05. So the difference in belief revision S2S3 is greater than the difference in belief revision on S3S4.

Anchoring effect states that the admission of evidence or negative information on a large anchor will be more downhill than a small anchor. The anchoring effect size depends on the size of the anchor. In this case, the sequence E(+--), big anchor is the S2 and small anchor is the S3. When the anchor is already small, negative information does not degrade as much when anchor in a large state, so the decline S3 to S4 is not as big a decline S2 to S3 (S2S3 > S3S4). This means that the drop in belief caused by negative information is larger on the big anchor than the small anchor. On the contrary, with the same of evidence or positive information has positive stronger on the small anchor compared to the large anchor. In order E(--+), the small anchor is the S2 and the great anchor is S3. Improved S3 to S4 is not as big as an increase in S2 to S3 (S2S3 > S3S4).

**c. Interaction effect between evidence order and tolerance for ambiguity and, and belief revision.**

The result of the interaction between the order information and tolerance for ambiguity give F value of 2.199 and is not significant at 0.05 (p > 0.05). This means that there is no mutual influence or joint effect between the order information and Ambiguity Tolerance on the average revision of belief. Ambiguity tolerance does not moderate the effect of the order of information on the revision of belief. Hypothesis 3 was not supported. Adjust R Square of 0.658 means that the variability revision of belief can be explained by the variable sequence of information, Tolerance for Ambiguity, and the interaction between the sequence of information and Tolerance for Ambiguity amounted to 65.8%.

Not supported hypothesis three which meant that Ambiguity Tolerance does not moderate the effect of the order of information on the revision of belief, in line with the results of Nasution and Supriyadi (2007) who found that tolerance for ambiguity does not interact or not moderate the relationship between the order of evidence and consideration of investors to revise their beliefs. The results of this study also supports the results of research conducted by Gul (1984) and McGhee (1978) that personality in the form of tolerance for ambiguity does not affect the relationship between the types of tasks or information and judgment. Directions relationship expressed in the hypothesis that individuals / subjects with a high tolerance for ambiguity will revise his conviction smaller than subjects with low tolerance ambiguity is not enough evidence.

The rejected of the hypothesis is likely due to the influence of subjects tolerance for ambiguity low at 51 is much larger than the subjects who tolerance for ambiguity high of only 24. The theory in psychology states that people with a low tolerance for ambiguity will be easier to change his conviction when receive new evidence or information compared to individuals with a high tolerance for ambiguity. If the number of subjects with a tolerance of ambiguity low is greater than subjects with high of tolerance for ambiguity then recency
effect and anchoring effect occurs. Based on the psychology understanding that the subject with low of tolerance for ambiguity will be easier to revise his beliefs than subject with high of tolerance for ambiguity, hence when receiving information in sequence and the mixture, then recency effect and anchoring effect occurs. If most or average of the subjects had a high of tolerance for ambiguity, then the subject is not easy to revise his beliefs when received information sequence and nature mix, so that recency effect and anchoring effect may not happen.

6. CONCLUSION

6.1. Conclusion
Recency effect occurs in the presentation of information in sequence and mix. Investor weighting information the latter is more important or greater than previous information. Anchor large (small) more decrease (increase) due to negative information (positive) compared to anchor small (large).
There is no interaction or joint effect between the order information and ambiguity tolerance on the average revision of belief. Ambiguity tolerance does not moderate the effect of the order of information on the revision of belief.
Directions relations proposed in the hypothesis that investors with a high tolerance for ambiguity will revise his conviction smaller than investors with a low tolerance for ambiguity is not proven.

6.2. Implications
This study has implications, both theoretically and practically. Here are some of the implications of this research. Theoretically, these results support the belief adjustment model (Hogart and Einhorn, 1992) and the finding some previous research. This study gives attention to the company's management to consider the sequencing of the presentation of information because the sequence of presentation can be as important as the content of the information presented to investors. If the information presented sequentially and mix, the company's management should present information in negative information early and positive information in the last section. The management of the company may consider the sequencing of the presentation of information as a strategic tool in communicating management planning to the various shareholders.
Investors should realize that their perception could be influenced by the company's strategy of presenting information. Awareness of the influence of the order and how factors such sequence can influence a person's beliefs revision process allows investors to be more careful in assessing the information presented company.

6.3. Limitation
This research has been cultivated for well designed, but realize their limitations. The limitations are among as follows. This study uses only one type of information that is only fundamental information (financial statements), whereas an investor when it will make an assessment of the company certainly is not just based on the company's financial information only. Besides, this study only uses information based on the positive and negative direction without considering the level or strength of the direction of the positive and negative information. Personality variables used in this study is only a tolerance for ambiguity. Based on the literature of psychology, personality variables can be measured with different types of variables, and the last is the study only tested the presentation of the information gradually or step-by-step, while testing the simultaneous presentation or end of the sequence is not done.
6.4. Suggestion
Based on the limitations noted above, there are some suggestions that can be given for the development of further research, namely using more than one type of information, such as information fundamental and technical information. Subsequent research may also consider the level or strength of directional information, and the next study can measure the personality variables by using measurements other than tolerance for ambiguity, for example using the Personality Plus Test developed by Florence Litteur. Further research could also examine the interaction between the variables of personality and cognitive style, and testing the presentation of information simultaneously or end of the sequence method can develop this research.

7. ACKNOWLEDGEMENTS
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REFERENCES


.........(2004). *How, Why and When Investors Revise Their Beliefs To Company Information and Their Implications to Firms Announcement Policy*. Yogyakarta. ANDI.


Suartana, I Wayan. and Suhendro, S. Without the Year. *Belief Model-Adjustment and Investor Perception: Experimentation circuit Short Information Simple and Simultaneous Response*. The article was not published.


