

# Study on decision making model on information presentation by client's management: an experimental test on halo and recency effect

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## ABSTRACT

Auditing is a process to verify financial statements that require a high degree of professional skepticism from auditors. However, auditors individually have cognitive limitation in processing information. Overall assessment potentially leads to halo effect that will influence auditors' decision making. On the other hand, the sequence and type of information presentation affect primacy and recency effect. Our experimental research design manipulated the information about client (convincing or unconvincing), type of information presentation (step by step and end of sequence), sequence of presentation (positive-negative, negative-positive) and length of information (long and short). The subjects of experiment were students who had taken auditing courses. The results shows that (1) there was higher halo bias when individuals had convincing clients than unconvincing clients, (2) there was halo and primacy effects when individuals had convincing clients and information was presented simultaneously and sequentially, (3) there was halo and primacy effects when individuals had convincing clients and information was presented both with positive-negative and negative-positive sequences and both with short and long series.

## ABSTRAK

Auditing adalah proses untuk memverifikasi laporan keuangan yang memerlukan skeptisisme profesional tingkat tinggi dari auditor. Namun, auditor secara individual memiliki keterbatasan kognitif dalam memproses informasi. Secara keseluruhan penilaian berpotensi menyebabkan efek halo yang akan mempengaruhi pengambilan keputusan auditor. Di sisi lain, urutan dan jenis penyajian informasi mempengaruhi efek keutamaan dan kebaruan. Desain penelitian eksperimental ini memanipulasi informasi tentang klien (meyakinkan atau tidak meyakinkan), jenis penyajian informasi (langkah demi langkah dan akhir dari urutan), urutan presentasi (positif-negatif, negatif-positif) dan panjang informasi (panjang dan pendek). Subjek penelitian adalah mahasiswa yang telah mengambil mata kuliah auditing. Hasil penelitian menunjukkan bahwa (1) terdapat bias halo tinggi ketika individu telah meyakinkan klien daripada tidak meyakinkan klien, (2) terdapat halo dan efek keutamaan ketika individu memiliki klien meyakinkan dan informasi disajikan secara bersamaan dan berurutan, (3) terdapat halo dan efek keutamaan ketika individu memiliki klien meyakinkan dan informasi disajikan baik dengan urutan positif-negatif dan negatif-positif dan baik dengan seri pendek dan panjang.

## 1. INTRODUCTION

Auditors rely on business risk audit approach in developing a holistic perspective of clients' business model (Bell et al. 2002). This perspective enables auditors to identify various factors that is potentially harmful to the clients' business model. However, using evaluative judgment in assessing

performance in details based on holistic perspective will potentially create halo effect (Murphy et al. 1993). Halo effect is a form of individual bias when one generalizes the assessment of one particular attribute towards the other attributes when assessing somebody or a particular object (Szhultzand Szhultz 2010). An impression on information that is

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firstly received has a significant effect on subsequent judgment (Tetlock 1983). When auditors mistakenly assess the risk of material statement during the planning phase due to halo effect, the mistakes will influence on audit program, audit tests, audit tests, and audit opinion.

Halo effect emerges when knowledge to evaluate the initial phase change the decision on the subsequent proof details (Slovic et al. 2002). A body of evidence that is consistent with overall assessment in the initial phase influences more significantly on the judgment rather than inconsistent evidence (Nisbett and Wilson 1977; Cooper 1981a; BalzerdanSlusky 1992; Murphy et al. 1993). Moreno et al. (2002) suggest that halo effect can affect accounting-related judgment. Their research explains that holistic impression changes managers' judgment in analyzing detailed accounting information when managers have to assess the investment risks.

In the audit context, O'Donnel and Schultz (2005) and Grammling et al. (2010) confirm the role of halo effect. Their empirical findings suggest that halo effect in auditor judgment can be caused by the holistic perspective that was previously developed (O'Donnel and Schultz 2005) or overall information that is not related to audit evidence (Gramling et al. 2010).

On the other hand, the belief revision model argues that auditors' decision making can also influenced by the sequence of information presentation (Hogarth and Einhorn 1992). Decision making that put more weight on initial information is called primacy effect. On the other hand, when the information received more lately have more weight in decision making process, the recency effect emerges. Gric (2008) argues that primacy effect can explain halo effect because the primacy effect put more weight in decision making process. However, research investigating decision making model based on halo effect is still inconclusive, while halo effect is closely related to primacy effect and that the relationship can be explained by belief adjustment model.

A decision making process that relies on the sequence of evidence will potentially cause recency and primacy effect. However, information presentation based on holistic perspective will potentially produce halo effect. Empirical model that explains halo effect in decision making process is still inconclusive. Since halo effect is closely related to primacy effect, the belief adjustment model (Hogarth and Einhorn 1992) will potentially explain halo effect. The model is also confirmed by Ashton and

Ashton (1988), Kennedy (1993), and Pinsker (2011). However, it is necessary to revise the model by testing the condition that stimulates halo effect and recency/primacy effect. The information on profile of convincing/unconvincing clients may create halo effect. Factors that promote primacy/recency effect is the method of information presentation (sequential or simultaneous), sequence of information presentation (positive-negative, negative-positive), and the length of information (short, long).

This research aims (1) to provide empirical evidence on the existence of halo effect when auditors have convincing clients than unconvincing clients, (2) to test the halo and primacy effect when auditors have convincing clients and the information is presented simultaneously or sequentially, and (3) test the halo and primacy effect when auditors have convincing clients, the information is presented with positive-negative or negative-positive sequence and the information is long or short.

## 2. THEORETICAL FRAMEWORK AND HYPOTHESIS

### Cognitive Theory and Halo Effect

The cognitive theory or cognitive psychology can explain the halo effect in auditors' assessment of risk of material misstatement. Cognitive psychology theory explains how people understand, learn, remember, and think about a certain set of information (Stenberg 2006). This theory illuminates mental process that consists of attention, recalling, producing and understanding language, problem solving and decision making (Riegler and Riegler 2009).

Bowditch and Buono (2001) state that individual perception is subject to distortion and illusion. Individuals always perceive a certain object different from the real presentation. Halo effect distorts perception by applying assessment of a certain characteristic of an individual or group towards other characteristics of the individual or group.

Halo effect emerges because the global evaluation in the early stage influences the detailed assessment in the subsequent stage (Slovic et al. 2002). Assessment on holistic information will reduce the ability of such analysis of information to diagnose specific attributes of the object (Balzer and Slusky 1992) and that the assessment is exercised by a top-down approach of assignment structure (Murphy et al. 1993). Table 1 displays the summary of previous literature on halo effect.

**Table 1**  
**Summary of Previous Literature on Halo Effect in Auditing Environment**

Researchers	Research Outcomes
Thorndike (1920)	A test of constant error (halo effect), i.e. a bias that emerges when an evaluator weight the individual's overall traits based on the positive trait of that individual.
Nisbet and Wilson (1977)	Global evaluation changes the evaluation of individuals' attributes
Balzer and Sulsky (1992)	A critical study and measurement of halo effect: a) there is no conceptual definition of halo effect, b) different conceptual definition is not systematically related to different definitions of halo effect, c) the measures of halo effect, different measures of halo effect are not strongly interrelated, and the measures of halo effect are not related enough to measure the validity and accuracy of rating, d) although halo effect is not a good measure for rating quality, it is not an important measure for rating process.
Murphy et al. (1993)	Halo effect may emerge everywhere. The existence of halo effect cannot be separated from the psychometric quality of the rating, and it is impossible to separate illusory aura in various settings.
Pike (1999)	The halo effect in the educational context that emerges when students assess the benefits of schooling with the outcomes of the schooling
O'Donnell and Schultz (2005)	The auditors' holistic perspective in making strategic risk assessment influences auditors' judgment on detailed tests of account. Auditors who assess risks before analytical procedure become insensitive about inconsistent accounts
Grammling et al. (2010)	Overall information on material weakness that are not related to the substitute control are related to preference for higher precision level. Overall information from inherent risks do not affect auditors' judgment

### **Belief Adjustment Model, Recency Effect, and Primacy Effect**

Individuals who consider making judgment often already have anchor on a certain set of information that is adjustable when receiving new information. This phenomenon is labeled as adjustment and anchoring heuristic (Hogarth 1987). Additionally, recency (primacy) effect develops when auditors tend to put more weight on the last (early) information. The theory that explains primacy and recency effects is labeled belief adjustment theory that was developed by Hogarth and Einhorn (1992) who consider the sequence effect to test the interaction between task characteristics and strategy of information processing. Belief adjustment model consider direction, strength and type of information that is neglected by Bayes Theorem that only considers sequence and pattern of information presentation in explaining decision making process. According to Grcic (2008), halo effect is closely related to primacy effect because individuals use anchor as an assessment on newly added information. Individuals do not revise their beliefs on newly added information because the anchor is still attached in their memory.

In the belief adjustment theory, halo effect can be explained by primacy effect. Primacy effect develops when information is presented with end of sequence (simultaneous) pattern and a short series of evidence or when step by step pattern is

accompanied by a long series of evidence. If information is complex, primacy effects also develops when the information is long, regardless whether the information is presented using step-by-step or end-of-sequence approach (Hogarth and Einhorn 1992).

### **Hypothesis Development**

#### **The Relationship between Client Profile with Halo Effect and Its Effect on Determination of Risk of Material Misstatement**

Ballau, Earley and Rich (2004), O'Donnell and Schultz (2005) explain that when business risk is considered low, auditors tend to be less sensitive towards evidence that reflect potential problems. Audit firms develop technology that enables auditors to gather, evaluate, and document evidence during analytical procedure (Hirst and Koonce 1996; Trompeter and Wright 2006). Auditors can generate holistic information from clients or from their superiors after having understood the clients' business characteristics and given by senior auditors to junior auditors as the operational auditor. If auditors receive holistic information that generally describes client condition as convincing, they tend to assess risk of material misstatement that support the holistic information from the partners.

Auditors tend to set the low risk of material misstatement when they receive information that

their clients condition are convincing and their partners assess the clients' business risks to be low and internal control system to be reliable. In this sense, holistic information already formed auditors' mental representative on clients that were initially assessed positively. Auditors' individual limitations tend to encourage them to assess the clients characteristics similar to early overall assessment. Representative bias explains that general information is used as a comparison on similarity of general assessment with detailed attributes of financial statements that are being audited. When confronting detailed assessment of a particular account, auditors will use general information that is easily absorbed by memory. High level of risk of material misstatement is considered to be high when auditors have clients with high business risks. The determination of level of business risk is based on level of understanding on clients' business and industry information and covers various aspects, such as internal and external.

Auditors who are confronted with information that their clients are convincing will have high level of halo effect in estimating risk of material misstatements in analytical procedure. Clients who are considered reliable by the partners will create mental representation on auditors that lead auditors that other evidence to be consistent with the positive early assessment. Auditors who perform strategic assessment on high (low) level will tend to estimate a high (low) level of risk of material misstatement (O'Donnel and Schultz 2005). Based on the previous arguments and literature, our first hypothesis is as follows:

H1: Subjects who have information about convincing clients will estimate lower level of risk of material misstatements than subjects with information about unconvincing information.

### **The Relation between Presentation of Client Profile, Halo Effect, and Method of Information Presentation**

Recency effect develops when information or evidence is presented sequentially (by a step-by-step approach) while primacy effect emerges when information is presented simultaneously (by an end-of-sequence approach). Previous literature (Pinsker 2007; Trotman and Wright 1996) indicates that recency effect develops when information is presented sequentially than simultaneously.

Halo effect is related to primacy effect as opposed to recency effect. Primacy effect develops when individuals use their first assessment as the

basis to perform assessment on other attributes of the object. When the first assessment is positive, the subsequent assessments on other evidence also tend to be positive, *vice versa*. Phillips (1999) finds that auditors who evaluate low-risk evidence are less sensitive towards detailed evidence of aggressive financial reporting. On the contrary, auditors with high-risk evidence are more sensitive towards such evidence. The profile of convincing profile will create mental representation of auditors that will lead auditors to have positive assessment towards their clients, regardless whether the subsequent evidence is positive or negative. In this context, positive (negative) assessment refers to estimating low (high) level of risk of material misstatement. Halo effect develops when individuals receive information on convincing information and positive information on clients followed by negative information and they continue to estimate the risk of material misstatements low.

Both simultaneous and sequential presentation of evidence provides a high level of halo effect because the initial assessment on clients is positive. Consequently, hypotheses 2a and 2b will be as follow:

H2a: Subjects with information on convincing client profile will estimate risk of material misstatement differently than subjects with information on unconvincing client profile for subjects to whom the evidence is presented simultaneously with the sequence of ++--.

H2b: Subjects with information on convincing client profile will estimate risk of material misstatement differently than subjects with information on unconvincing client profile for subjects to whom the evidence is presented sequentially with the sequence of ++--.

Individuals who receive negative information followed by positive information on convincing clients will stick to the initial assessment due to strong halo effect in the initial assessment. Consequently, the 2c and 2d hypothesis will be as follows:

H2c: Subjects with information on convincing client profile will estimate risk of material misstatement lower than subjects with information on unconvincing client profile for subjects to whom the evidence is presented simultaneously with the sequence of --++.

H2d: Subjects with information on convincing client profile will estimate risk of material misstatement lower than subjects with information on unconvincing client profile for subjects to whom the

**Table 2**  
**Experiment Matrix**

Presentation of Information on Client Management	Method of Presenting Information							
	Simultaneously				Sequentially			
	Positive-Negative		Negative-Positive		Positive-Negative		Negative-Positive	
	Short	Long	Short	Long	Short	Long	Short	Long
Convincing	1a	1b	2a	2b	3a	3b	4a	4b
Unconvincing	5a	5b	6a	6b	7a	7b	8a	8b

evidence is presented simultaneously with the sequence of --++.

### The Relationship between Presentation of Client Profile, Halo Effect, and Sequence of Information Presentation

Hogarth and Einhorn (1992) suggest that when individuals provide low anchor, their belief adjustment level will also be low. On the contrary, when the anchor is high, auditors will be more sensitive so that their belief adjustment level will also be high. Recency effect develops when individuals performing high anchor will estimate lower than individuals who provide low anchor in the sequence of ++-. Referring to halo effect, individuals with unconvincing client profile and then receiving positive followed by negative evidence or negative followed evidence will have a high level of halo effect because strong initial assessment will not revise their belief.

Ashton and Ashton (1988) and Tubbs et al. (1990) provide empirical evidence that recency effect will not develop if the evidence is consistent, either in confirmation or disconfirmation. Hogarth and Einhorn (1992) explain that recency effect will develop if individuals evaluate a series of short, complex, and combined (positive and negative) evidence. They use at most 12 pieces of evidence in a series of evidence. Complexity of evidence refers to task familiarity and the length of piece of evidence. More complex or longer evidence indicates the existence of primacy effect. Since primacy effect is related to halo effect, longer and more complex evidence will lead to halo effect. Based on the discussion, the following hypotheses are proposed:

H3a: Subjects with information on convincing client profile will estimate risk of material misstatement differently than subjects with information on unconvincing client profile for subjects to whom the evidence is presented simultaneously with the sequence of ++++----.

H3b: Subjects with information on convincing client profile will estimate risk of material misstatement differently than subjects with information on unconvincing client profile for subjects to whom the evidence is presented sequentially with the se-

quence of ++++----.

H3c: Subjects with information on convincing client profile will estimate risk of material misstatement differently than subjects with information on unconvincing client profile for subjects to whom the evidence is presented simultaneously with the sequence of ----++++.

H3d: Subjects with information on convincing client profile will estimate risk of material misstatement differently than subjects with information on unconvincing client profile for subjects to whom the evidence is presented sequentially with the sequence of ----++++.

## 3. RESEARCH METHOD

### Experimental Design

We conducted experiment at Satya Wacana Christian University Salatiga. Our subjects were students who have taken auditing courses. Our research design is a factorial design 2 x 2 x 2 mixed design (between-within subject) as can be seen at Table 2.

### Operational Definition and Measurement of Variables

The operational definition and measurement of variables are as follows:

- (1) Client profile is description on clients' business and industry. Based on the physical appearance, there are two types of client profile: convincing and unconvincing client profile.
- (2) Method of information presentation is a method of presenting audit evidence, either sequentially (step by step) or simultaneously (end of sequence).
- (3) Sequence of information is the sequence of audit evidence presentation, either positive evidence followed by negative evidence or negative evidence followed by positive evidence.
- (4) Length of information consists of a short series and long series of information.
- (5) Risk of material misstatement is auditor's judgment in estimating risk of material misstatements of sales account in analytical procedure with scores range from 1 (very low) to 7 (very high).

### Data Analysis

Initially, we display the descriptive statistics of

**Table 3**  
**Participant Characteristics**

Category	Quantity	%
IPK		
>3.5	6	7,5%
3-3.5	31	38%
2.5-<3	53	53.8%
Semester		
5/6	78	97.5%
7/8	2	2.5%
Age		
19-20	41	51.2%
21-22	34	42.5%
23-25	5	6.2%
Sex		
Male	33	31.2%
Female	47	58.8%

**Table 4**  
**Test of Characteristics Difference**

		Mean Squares	F	Sig
GPA	Intergroup	0.274	0.632	0.765
	Intragroup	0.434		
Semester	Intergroup	0.022	0.824	0.597
	Intragrup	0.027		
Age	Intergrup	0.085	1.421	0.198
	Intragrup	0.060		
Sex	Intergrup	0.337	1.443	0.189
	Intragrup	0.233		

subjects' demographic characteristics. We use one-way ANOVA to test the effectiveness of randomized manipulation (client profile, method of information presentation, and sequence of information) in eliminating inter-group difference in individual characteristics. Randomization is considered effective if the significance value of ANOVA test is higher than 0.05. To test the hypothesis, we use independent t-test to compare audit judgment between manipulation groups.

#### 4. DATA ANALYSIS AND DISCUSSION

We performed audit simulation to perform the laboratory experiment. Our subjects were 80 bachelor students from Accounting Department, Satya Wacana Christian University. All subjects qualified manipulation check that consisted of questions asking the role and tasks in audit simulation and client information. We collected 4 participants-related information: GPA, semester, age, and sex. The participant-related information can be seen at Table 3.

Most subjects aged between 19-20 years and had GPA interval 2.5-3. There were more female participants than male ones. Additionally, most subjects were in their third year of their study period (semester 5/6). Our one-way ANOVA test shows that subjects' GPA, semester, age, and sex do not influence audit judgment, indicating that our randomization of participants' demographic characteristics is effective. More specifically, all the significance values of individual demographic characteristic are much higher than 0.05 (0.586 for GPA, 0.396 for semester, 0.792 for age, and 0.174 for sex), implying no significant effects of demographic characteristics on audit judgment (see Table 4).

#### Hypothesis Testing

Hypothesis 1 states that the subject with convincing client profile will estimate risk of material misstatement lower than subjects with unconvincing client profile. Our independent t-test shows that the average assessment score of client's internal control

**Table 5**  
**Result of Test of Hypothesis 1**

	N	Average	SD	t value (Sig)
Presentation of Client Profile				
Convincing	39	70.26	7.43	-2.106 (0.038)
Unconvincing	41	73.90	8.02	

**Table 6**  
**Result of Tests of Hypotheses 2a and 2b**

	Hypothesis	N	Average	SD	t value (Sig)
2A	PANEL A. Simultaneous Presentation of Positive and Short Information				
	Convincing	17	74.47	9.42	-2.149 (0.038)
	Unconvincing	22	79.63	5.48	
2B	PANEL B. Sequential Presentation of Positive and Short Information				
	Convincing	22	84.23	8.85	3.664 (0.001)
	Unconvincing	19	74.74	7.54	

**Table 7**  
**Results of Test of Hypotheses 2c and 2d**

	Hypothesis	N	Average	SD	t value (Sig)
2C	PANEL A. Simultaneous Presentation- Negative, Short				
	Convincing	17	50.29	13.52	2.423(0.020)
	Unconvincing	22	37.05	19.13	
2D	PANEL B. Sequential Presentation – Negative, Short				
	Convincing	22	39.77	21.52	9.584 (0.000)
	Unconvincing	19	-10.95	8.85	

system in the first group (subjects with convincing client profile) was 70.26 while the score in the second group (subjects with unconvincing client profile) was 73.90 ( $p=0.038$ ) (see Table 5).

The results indicate significant difference of the assessment score between the two groups, supporting our first hypothesis. More specifically, subjects who received convincing client profile estimated risk of material misstatement lower than subjects who received unconvincing client profile. Subjects in the first group exhibited halo effect because of the convincing client profile. Halo effect creates high impression and mental representation to auditors. Consequently, the anchor will lead auditors to assume that the clients are reliable when they make audit judgment in estimating risk of material misstatements if they have convincing client profile. In the process of audit, understanding the profile of client is important step to decide the preliminary judgment that will impact to next judgment. The inaccurate of judgment in preliminary will influence the next audit judgment in substantive test and analytical test, and the final decision. Halo effects will impact to the inaccurate judgment if the auditor have

not good experience and not sensitive with the convincing client profile.

### **Test of Hypotheses 2**

We performed independent t-test to investigate the effect of presentation of client profile (convincing vs. unconvincing) and method of presenting information (simultaneously or sequentially) on audit judgment. Recency effect develops when information is presented sequentially while halo effect emerges when individuals put much more weight on initial information than subsequent information. Our test shows that in the case of short information (++--) that is provided simultaneously, the subjects with convincing client profile estimated the risk of material misstatements lower (74.47) than subjects who received unconvincing client profile (79.63) and the difference is significant ( $p=0.038$ ). The results indicate halo effect in audit judgment formation.

Sequential presentation of information tends to create recency effect. The average score of internal control risk assessment for group with short information (++--) presented sequentially was 84.23, higher than the score of the group who receive (--

**Table 8**  
**Results of Test of Hypothesis 3a and 3b**

	Hypothesis	N	Average	SD	t value (Sig)
3A	PANEL A. Simultaneous Presentation Positive-Long				
	Convincing	17	81.47	9.81	2.260(0.300)
	Unconvincing	22	74.32	9.79	
3B	PANEL B. Sequential Presentation Positive-Long				
	Convincing	22	90.41	9.57	5.955 (0.000)
	Unconvincing	19	74.21	7.50	

**Table 9**  
**Results of Test of Hypothesis 3c and 3d**

	Hypothesis	N	Average	SD	t value (Sig)
3C	PANEL A. Simultaneous- Presentation Negative Long				
	Convincing	17	56.47	16.18	-2.790(0.008)
	Unconvincing	22	67.73	8.69	
3D	PANEL B. Sequential Presentation -Negative Long				
	Convincing	22	38.87	16.25	2.032 (0.049)
	Unconvincing	19	27.77	20.77	

++) information that is presented sequentially (74.74). Subjects with convincing and short (++--) information tend to estimate the risk lower than subjects with unconvincing information because of the impression created by the client profile. However, sequential presentation of information (++--) creates recency effect and diminish halo effect because subjects put more weights last information much more than early and convincing information. The convincing information that presented in preliminary audit step could not influence halo effect because the negative information in the end of information that presented more remembered and individual tend to trust latest information easily (see Table 6).

In group with simultaneous information (--++), recency effect will be less significant. Consequently, the subjects will exhibit halo effect due to first impression of negative client profile. When subjects initially receive unconvincing information and their initial impression is negative, the assessment on risk of material misstatement will be less. Table 7 displays the result of tests of hypotheses 2c and 2d.

### Test of Hypotheses 3

Hypothesis 3 a states that in the case subjects simultaneously receive information with the sequence of ++++---, subjects with convincing client profile will estimate risk of material misstatement differently than subjects with unconvincing client profile. Our independent t-test (Table 8) shows that subjects with

convincing client profile and a long series of information (negative-positive) estimated the risk of material misstatements of 81.47. The value is significantly higher than the value of subjects with unconvincing client profile and a long series of information (negative-positive) (74.32) (see Table 8).

The subjects with information on convincing client profile have an average score of audit judgment of 90.41. On the other hand, subjects with unconvincing profile have an average score of audit judgment of 74.21. In the long presentation of positive information simultaneously, individual that anchor the first information that convincing will determine risk of material higher than individual with the unconvincing information. The halo effects happen in that situation because the judgment of audit weight the first information higher the last information. When the client profile present unconvincing appearance, the assessment of material misstatement follow the last information, so the recency effect was happen.

Our test of hypothesis 3c in Table 7 indicates that the average score of audit judgment of subjects with convincing client profile is 56.47 while the score is 67.73 for subjects with unconvincing client profile. The results of test of hypothesis 3d also shows auditors with convincing client profile and negative, long information presented sequentially exhibit average score of 38.87 while clients with unconvincing client profile 27.77 (see Table 9).

Overall, our results show that audit assignments potentially create halo effect and recency



effect. The presentation of information influences the judgment of audit that presented simultaneously or sequentially. The bounded rationality limited the judgment because they have cognitive limitation to process the information. The presentation of information (simultaneous or sequential) impacts to audit judgment, when information was presented in long series. This research completed the Pinsker (2011) research that stated when information presented in the long series, the recency effect happen. Individual didn't considering the long information; they more pay attention about the convincing of profile appearance.

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

Halo effect develops when individuals have clients with convincing condition rather than clients with unconvincing condition. Halo effect and primacy effect emerge when individuals have clients with convincing condition and information is presented simultaneously and sequentially. When individuals have clients with convincing condition and (short or long) information is presented with sequence of positive-negative or negative-positive, halo effect and primacy effect emerge. The implication of this research is useful for accountant that use analytical procedure in preliminary audit to be careful when learn client profile. They must be improving their skepticism and must be active to discuss their judgment with team or their supervisor. Public accountant firm must held the training for their junior, senior and supervisor audit to improve their knowledge and their performance in audit judgment. The limitation of this research was the setting of this research ignoring the business risk of client. The future of the research could be designed with high/low business risk of client. This research also uses individual decision, but in practice the decision of audit using discussion with their supervisor and audit team. The future research could use discussion as a method to mitigate halo and recency effect.

## REFERENCE

- Ashton, AH and RH Ashton, 1988, 'A Sequential Belief Revision in Auditing', *The Accounting Review*, October, pp. 623-641.
- Balzer, W and Sulsky, M 1992, 'Halo and Performance Appraisal Research: A Critical Examination', *Journal of Applied Psychology*: 975-985.
- Ballou, Brian, Earley, Christine E, Rich & Jay S, 'The Impact of Strategic-Positioning Information on Auditor Judgments about Business-Process', *Auditing: A Journal of Practice & Theory*, Vol. 23, No. 2, September: 71-88.
- Bell, T, M Peecher, and I Solomon, 2002, 'The Strategic-Systems Approach to Auditing', In *Cases in Strategic-Systems Auditing*, edited by T, Bell and I Solomon, 1-34, New York, NY, KPMG.
- Bowditch, JL and Buono, AF 2001, *A Primer on Organizational Behavior*, John Wiley.
- Cooper, WH 1981a, 'Ubiquitous Halo', *Psychological Bulletin*, Vol. 90, No. 2: 218-244.
- Grammling, A, O'Donnel, E and Vandervelde, S 2010, 'Audit Partner Evaluation of Compensating Controls: A Focus on Design Effectiveness and Extent of Auditor Testing', *Behavioral Research in Accounting*, Vol. 29: 175-187.
- Grcic, J 2008, 'The Halo Effect Fallacy', *Electronic Journal for Philosophy*: 1-58.
- Hirst, D and Koonce, L 1996, 'Audit Analytical Procedures: A Field Investigation', *Contemporary Accounting Research*: 457-486.
- Hogarth, RM 1987, *Judgment and Choice*, 2<sup>nd</sup> Edition, Singapore: John Wiley & Sons.
- Hogarth, RM, and HJ Einhorn, 1992, 'Order Effects in Belief Updating: The Belief-Adjustment Model', *Cognitive Psychology*, Vol. 24: pp. 278-288.
- Kennedy, J 1993, 'Debiasing Audit Judgment with Accountability: A Framework and Experimental Result', *Journal of Accounting Research* 31: 481-491.
- Moreno, KT, Kida and J Smith, 2002, 'The Impact of Affective Reaction o Risk Decision Making in Accounting Contexts', *Journal of Accounting Research*, 40, 5: 1331-1349.
- Murphy, K, Jako, R and Anhalt, R 1993, 'Nature and Consequences of Halo Error: A Critical Analysis', *Journal of Applied Psychology*, Vol. 2: 218-225.
- Nisbet, R and Wilson, DT 1977, 'The Halo Effect: Evidence for Unconscious Alteration of Judgments', *Journal of Personality and Social Psychology*, 250-256.
- O' Donnel, E and Schultz, JJ 2005, 'The Halo Effect in Business Risk Audits: Can Strategic Risk Assessment Bias Auditor Judgment about Accounting Details?', *The Accounting Review*, Vol. 80, No. 3: 921-939.
- Philips, F 1999, 'Auditor Attention to and Judgment of Aggressive Financial Reporting', *Journal of Accounting Research*, Vol. 37, No. 1, Spring.
- Pinsker R 2007, 'Long Series of Information and Nonprofessional Investors' Belief Revision', *Behavioral Research in Accounting*, 19: 197-214.
- Pinsker R 2011, 'Primacy or Recency? A Study of

- Order Effects when Nonprofessional investors are provided a Long Series of Disclosures', *Behavioral Research in Accounting*, 23: 161-183.
- Pike, GP 1999, 'The Constant Error of the Halo in Educational Outcomes Research', *Research in Higher Education*, 61-86.
- Riegler, GR and Riegler, BR 2009, *Cognitive Psychology*, Second Edition, USA: Pearson Education.
- Schultz, D and Schultz, SE 2010, *Psychology and Work Today*, Tenth Edition, USA: Pearson Education.
- Slovic, P, M Finucane, E Peters and D MacGregor, 2002, 'Rational Actors or Rational Fools: Implications of the Affect Heuristic for Behavioral Economics', *Journal of Socio-Economic*, 31: 329-342.
- Stenberg, RJ 2006, *Cognitive Psychology*, USA: Thomson Wadsworth.
- Tetlock, P 1983, 'Accountability and Perseverance of First Impressions', *Social Psychology Quarterly*, (December): 285-92.
- Thorndike, EL 1920, 'A Constant Error in Psychological Ratings', *Journal of Applied Psychological*, 82 (5): 665-674.