# HALO EFFECT IN ANALYTICAL PROCEDURE: THE IMPACT OF CLIENT PROFILE AND INFORMATION SCOPE

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#### ABSTRACT

Many auditors use risk-based audit as a methodology that emphasizes assessing audit risk. A holistic perspective during strategic assessment encourages the auditor to focus on the big picture. They understand the industry and client business and determine the risk of material misstatement asan initial hypothesis about the client. Previous research found that a holistic perspective in strategic assessment causes a halo effect. This study focuses on the phenomena of a halo effect in analytical procedures, the impact of a client's profile and scope of information that be presented to auditor in planning an audit. We propose that auditor judgment is impacted by the client's profile and professional judgment will be different in a holistic perspective. This study is motivated by bounded rationality of individuals and uses representative heuristics to evaluate clients. The holistic opinion of the person tends to be consistent when analyzing detailed diagnostic information about the person. In an analytical procedure context, understanding of the industry and client business influences the extent to which they adjust account-level risk assessment. We propose two hypotheses. The first hypotheses is that the risk of material misstatement after presentation of client's profile is positively correlated with the risk of material misstatement after get financial information of client. The second hypothesis is an auditor who obtains information about a client in the scope of holistic information would determine the risk of material misstatement lower than auditor who obtains information in scope of specific information. Data from laboratory experiment using various levels of auditor were collected. The finding suggest a halo effect is generated during analytical procedures and when auditors obtain information about the client in holistic scope.

# **JEL**: M42

**KEYWORDS**: Halo Effect, Analytical Procedure, Scope of Holistic Information, Specific Scope Information

#### **INTRODUCTION**

A uditors in a business risk audit approach conducts strategic assessments to develop a holistic perspective of their client's business model (Bell et al., 2002). Understanding the client's business and industry is part of the planning step (Arens, Elder and Beasley, 2012) and analytical reviews reveal important insight concerning an auditor's hypothesis test (Luippold and Kida, 2012). Hypotheses are often developed early in the decision process (Koonce, 1993; Weber et al., 1993). Koonce (1992, 1993) stated that hypothesis testing during analytical procedures as a four-step, diagnostic inference processes: hypothesis generation, and information search and hypothesis evaluation. Bell et al. (1997), Bell et al. (2005) stated that strategic assessment approaches influence auditor expectations. The use of a holistic perspective for strategic assessment is useful in identifying various factors threatening a business model.

However, evaluative judgment, when assessing performance in detail based on holistic perspective, potentially causes the emergence of a halo effect (Murphy, Jako and Anhalt, 1993). The halo effect is an individual biases in conducting an assessment on a person or object that generalizes assessment of an attribute to conduct an assessment on other attributes (Szhultz and Szhultz, 2010). The halo effect is defined as a "marked tendency to think of the person in general as rather good or rather inferior and to color the judgments of the person's specific performance attributes by this general feeling (Thorndike, 1920). The impression of information obtained from one experience significantly effects the next judgment (Tetlock, 1983). Specifically, information items entered earlier are considered more important than later items, this phenomenon is referred to as the halo effect (Grcik, 2008), also called the primacy effect (Hunton, 2001; Hogarth and Einhorn, 1992, Pinsker, 2007; 2008).

The halo effect occurs when knowledge for holistic assessment at the beginning a decision alters the next detailed evidence (Slovic et al., 2002). Studies provide evidence supporting the halo phenomenon in a variety of performance evaluation contexts (Nisbett and Wilson, 1977, Cooper, 1981, Balzer and Slusky, 1992), when information is evaluated using a top-down task structure and when one acquires general information before evaluating detailed performance criteria (Murphy et al. 1993). Moreno et al. (2002) stated the halo effect may affect judgment in accounting contexts and stated that holistic impressions alter investment risk assessments.

The halo effect is in the domain of psychology (e.g Thorndike, 1920; Nisbet and Wilson (1977), education (e.g., Pike, 1999), marketing (e.g Leuthesser et al., 1995, Wirtz and Bateson, 1995). Previous research shows that appearance of an object to be evaluated impacts assessment of another attribute of the object. In an audit setting, the halo effect results in auditors interpreting judgment-specific evidence to be consistent with holistic knowledge. O' Donnel and Schultz (2005) find the halo effect, associated with strategic risk assessment, influences auditor judgment by altering their tolerance for inconsistent account fluctuation. Grammling et al., (2010) suggests that auditors were influenced by knowledge of a global judgment not directly related to the evidence they evaluated. The factor that influenced the halo effect and influences to less professional judgment. Past research of the halo effect in auditing focuses on a holistic approach and global knowledge to professional judgment. Previous research in analytical procedures can be investigated especially in initial expectations (Messier, Simon and Smith, 2013).

This study differs from prior research because it focuses on the halo effect in analytical procedures that determines initial risk assessment based on visualization of the client profile. Subjects with convincing profiles will evaluate with high rating in another aspects. We propose that subjects with high (low) assessment on convincing client profile presented will assess high (low) misstatement risk of account balance. We specially address an important question related to the halo effect: will the convincing profile client induce less auditor judgment?

Prior research focuses on how the holistic approach generated during strategic assessment influences judgment by altering auditor tolerance for inconsistent fluctuations of account (O'Donnel and Schultz, 2005; Grammling et al. (2010). When auditors conduct analytical procedures within the scope of holistic information, the complexity and ambiguity of the task require nontrivial commitment of cognitive effort and make their judgment quite salient. Luippold and Kida (2012) provide evidence that information ambiguity and data complexity affect judgment accuracy during analytical reviews.

We posit that individual are more likely influenced by scope of information because representativeness heuristics and cognitive limitation. Subjects will determine low risk of material misstatement when information is presented in a holistic scope rather than in specific scope. We specifically address an important question related to the scope of information: will auditors in the scope of holistic information determine the risk of material misstatement lower than auditors in the scope of specific information.

This study contributes to behavioral auditing literature in two ways. First, it considers the impact of client profiles in directing auditor perception on material risk of assessment decision. Secondly, this research is expected to shed light on analytical procedures to encourage auditors to scope of client financial report information that influence the auditor's professional judgment.

We experimentally examine auditor judgment at various levels (junior, senior, manager, supervisor and partner) with regard to the risk of material misstatement on sales accounts in convincing client profiles and in inconsistent fluctuation of accounts. The result suggests that the appearance of a convincing client profile impact on auditor professional judgment, and will determine a low risk of material assessment if client financial information is presented in the scope of holistic.

The remainder of this paper is organized as follows. The next section presents a literature review that includes theory and hypotheses development. The third section provides an experimental research method used in this study, and the fourth explains the results and implications of the study. The conclusion and limitations of the study are presented in the last section

# LITERATURE REVIEW

The halo effect is based on cognitive theory. It explains how humans understand, learn, memorize, and thinks about certain information (Stenberg, 2006). In cognitive psychology, mental processes consisting of attention, memorizing, producing and understanding language, problem solving, and decision making will be learned (Riegler and Riegler, 2009).

Bowditch and Buono (2001) stated that individual perception can be the subject of several distortions and illusions that cause individuals to see a different object from its real presentation. The halo effect is a perception distortion process using assessment of a characteristic from an individual or group to cover other characteristic assessments from the individual or group.

An individual who uses judgment for decision making often has a beginning assessment (anchor) on information that is then adjusted when new information is received. This is called the adjustment and anchoring heuristic (Hogarth, 1987). Auditors tendency to weight the last information received is called the recency effect. Tendency to weigh the first information received is called the primacy effect. A theory that explains the primacy effect and recency effect is known as belief adjustment theory developed by Hogarth and Einhorn (1992). They consider an ordering effect to examine interaction between duty characterization and information process strategy. Belief adjustment models consider direction, power, and type of information. The Halo effect, according to Grcic (2008), relates to primacy effect because the impressive anchor assessment is used as the assessment of additional new information. The individual does not revise their belief when additional new information arrives because the impressive anchor still attaches in their memory.

The halo effect can be explained with primacy effect in belief adjustment theory. The primacy effect emerges because simple information at the end of a sequence pattern occurs at the same time as a short evidence series or with a step by step pattern with long evidence series. When information given is complex, a long evidence series, or step by step and end of sequence, primacy effects can also occur (Hogarth and Einhorn, 1992).

Analytical procedures are defined as "evaluations of financial information through analysis of plausible relationships among financial and nonfinancial data (AICPA 2012, AU 520). Analytical procedures are required at the planning and review phases of an audit (SAS No. 56, AICPA 1988). Trompeter and Wright (2010) stated that analytical procedures are valuable because auditors consider the reasonableness of financial results based on expectations and with a broader view (forest for the trees as opposed to the tree-by-tree utilized more traditional audit approaches) (Bell et al. 2002; Jacobson, 2001). Analytical procedure is an important phase in the planning step to determine the nature and scope of the audit test.

Auditors develop and evaluate possible explanations when they have identified a misstatement risk associated with an unexpected change in account balance (Yip-Ow and Tan 2000; Asare and Wright, 1997). Auditors use analytical procedures to assess the risk of material misstatement (ISA 315; SAS 107). Auditors use performance measures to highlight situations where problems may exist in management's strategy that can be a source of audit risk (Kinney and McDaniel, 1996; McDaniel and Kinney, 1995).

Koonce (1992, 1993) presented a cognitive approach based on the four components of a diagnostic, sequential and iterative (DSI) process: mental representation, hypothesis generation, information search and hypothesis evaluation. Messier et al. (2012) stated there are four phases in analytical procedure: (1) develop an expectation, (2) establish a tolerable difference (a difference between the auditor's expectation and the client's reported amount that would not warrant further investigation), (3) compare the expectation to the recorded amount and investigate significant differences (differences greater than the tolerable difference), and (4) evaluate explanations and corroborative evidence. Auditor's performing analytical procedures consider financial and nonfinancial information when formulating mental representations (Blocher and Cooper, 1988; Peters, 1990).

The first researchers to conduct a field study about analytical procedures used by practicing auditors were Hirst and Koonce (1996). They find that most planning work was done by seniors and managers, and auditor's relied on the client for much of the analytical procedure information. Trompeter and Wright (2010) found that analytical procedures practices had changed to include consultation with non-financial personnel when performing analytical procedures. Another finding are auditors' development of expectations exhibited better precision. Technology had positively affected expectations and SOX's focus on internal controls had the potential to lead to more employment of the analytical procedure.

Several behavioral studies conducted on analytical procedures relate to the strategic system approach (SSA) (Bell et al., 1997; Bell et al., 2005) and provide evidence that an SSA approach can influence auditor expectations (Messier et al., 2013). SSA approach can affect auditors' account risk assessments (O'Donnel and Schultz, 2003; 2005) and using a more thorough strategic assessment can lead to more balance in risk assessment (Knechel, Salterio and Kozlowski, 2010).

The scope of holistic information faced by an auditor when conducting analytical procedures could result in the emergence of a halo effect. Ballou, Earley and Rich (2004), O'Donnel and Schultz (2005) explained that when business risk is determined low, auditor's became less sensitive to evidence that reflects a potential problem.

CPA firm's develops a methodology for auditor's to obtain, evaluate, and record evidence during analytical procedures (Hirst and Koonce, 1996; Trompeter and Wright, 2010). Holistic information can be obtained from a client or audit team leader to understand a client's business and given to the senior and junior auditor as a field assignment executor. The auditor may accept holistic information that generally describes the client's condition that is convincing. Then in giving an assessment on risk of material misstatement in analytical procedure, it tends to be in accordance with holistic information and the partner's assessment.

Professional judgment by an experienced auditor would be better than that by a less experienced auditor (Knapp and Knapp, 2001). The auditor as an information provider tends to seek information that is consistent with his/her judgment. Meanwhile, the partner as a reviewer would tend to seek evidence that is inconsistent (Libby and Trotman, 1993). That condition can be explained by a cognitive model of justification process which is manipulated to seek evidence that supports other decisions or judgments (Peecher, 1996). Auditor's combine objective justification in mental representation. That decision taken needs support (Gibbins and Newton, 1994). This condition occurs because in audit methodology, the decision making process is gradual, so the previous decision may affect the next decision.

Research in psychology documents that individuals may be subject to "confirmation biases" or " halo effects (Ballou, Earley and Rich, 2004). Individuals tend to form a hypothesis about a target based on preliminary information and then gather more data about the client by choosing those item of information that will provide evidence to confirm rather than disconfirm their initial hypothesis (Snyder and Swann, 1978; Balzer and Sulsky, 1992; O'Donnel and Schultz, 2005). Halo effect studies primarily focus on the valence of the information and find that a similar confirmatory process occurs (Tan and Jamal, 2001). Research in decision making indicates that individuals tend to confirm their hypotheses and will have a greater response to confirming evidence compared to disconfirming. Church (1990, 1991) and Bedard and Biggs (1991) found that auditor's exhibited confirmatory tendencies in their evaluation.

A client's condition that convinces the auditor of a low business risk as well as a good assessment of the internal control system would cause an auditor to determine low risk of material misstatement. Holistic information has formed a mental representation on the auditor about the client who initially is assessed positive. The limitation of the auditor as an individual would tend to conduct an assessment of the next client generally similar to the beginning assessment. By representative bias, general information is used as a comparison on the similarity of general assessment with detailed attributes of financial reports in analytical assignment. In a detailed assessment of accounting, the auditor would use general information that is easily absorbed in memory.

Syneder and Swann (1978) proposed that decision makers generally employ one of three information search strategies: (1) a search for evidence that confirms the hypothesis under scrutiny, (2) search for disconfirming evidence, or (3) a "balanced" search that invests equal amounts of effort to uncover both confirming and disconfirming facts. Auditors that assess the client profile with good condition tend to confirm their initial assessment after get financial information. McMillan and White (1993) found that auditor's may have a tendency to underweight potentially important error-related evidence when they are not focused on detecting material errors. This may happen because confirmation bias mitigates their sensitivity to material evidence. Based on previous literature and the argumentation, we propose the first hypothesis:

H1: The risk of material misstatement after assessing the convincing client profile should be positively correlated with the risk of material misstatement after obtaining financial information.

ISA 200, 315 and 330 (IAASB 2006a, 2006b, 2006c), Public Company Accounting Oversight Board AS No. 5 (PCAOB 2007), and SAS Nos. 104-111 (AICPA 2006a, 2006b, 2006c), stated the importance of risk assessments in auditing. Bell et al. (1997) presented the basic concepts underlying what they called strategic-systems auditing (SSA), now more broadly referred to as business risk auditing (BRA; Robson, Humphrey, Khalifa and Jones, 2007). BRA is characterized by a top-down focus on a client's competitive environment strategy for success and critical internal processes (Knechel, 2007). Curtis and Turley (2007) present two critical elements of BRA methodology that are the focus of controls over important business risks within the client's environment and the uses of analytical evidence as a basis for evaluating a client's operations and potential risk of material misstatement. Understanding business and industry client requires use of an analytical procedure to generate an initial hypothesis about client. Research in auditing

indicates that hypotheses are developed early in the decision process and then used to guide further data gathering (Koonce, 1993). If an auditor fails to assess client risk appropriately, erroneous conclusions may ensue (Fukukawa and Mock, 2011, Bedard and Biggs, 1991).

The level of material misstatement is considered high if an auditor faces a client with high-risk business. Based on findings in previous research in accounting (Earley, 2002), Ballou, Earley and Rich (2004) examines an auditor who views strategic information indicating that a client company is typical (atypical) of others in its industry. The auditor assesses an additional item of evidence indicating a small problem in a business process to be relatively less (more) risky. Phillips (1999) found that an auditor who evaluates evidence related to a low (high) risk account would be less (more) sensitive on detailed evidence of aggressive financial reports. Thus, the executor auditor, when facing general information and obtaining strong impression on client's condition, would tend to deliver judgment that is consistent with the general assessment when facing detailed transaction assignment. Psychology research has examined differential encoding of typical versus atypical information in memory (Smith and Graesser, 1981; Shapiro and Fox, 2002) affects recall, recognition and processing of additional information (O'Sullivan and Durso, 1984). Based on previous studies, we posit the scope of information may influence the auditor's professional judgment. The specific scope of information will induce more accurate professional judgment than holistic scope if information.

Brown and Solomon (1990) argued that domain-specific knowledge is crucial for developing expectations for and demonstrating a priori expectations for configure information processing. Both context-and task-specific knowledge need to be used in determining judgment tasks that are more effectively and efficiently accomplished employing information processing (Brown and Solomon, 1991). The determination of business risk is based on the understanding of holistic client information that includes various internal and external aspects. Auditor's facing holistic information that is convincing on a client would tend to have a high halo bias in determining the level of risk of material misstatement in the analytical procedure. The client considered sound by the partner would make a mental representation that other evidences would be in accordance with the good beginning assessment.

Auditors who conduct strategic assessment at high (low) level would tend to determine the risk of material misstatement to be high (low) (O'Donnel and Schultz, 2005). A positive holistic on a client's condition in the form of high strategic assessment could cause a high halo effect when facing account fluctuation inconsistency. With a high halo effect, the condition of the client is perceived sound by the auditor, whereas the actual condition is that account fluctuation inconsistency occurs. The client's condition that is perceived well and is supported by the assessment from the partner that business risk is low causes the risk level of material misstatement in analytical testing to also be determined low.

Specific information that shows a client's condition in detail indicates the emergence of fluctuation accounting inconsistence could potentially cause a low halo effect. The auditor would be better in grasping the signal of account fluctuation inconsistency in specific information. When facing a partner's assessment that the level of client's business risk is determined low, the auditor with specific information does not easily get tricked with the convincing client's condition. Based on the previous argumentation and research, we can propose the second hypothesis as the following:

H2: Auditor in scope of holistic information would determine the risk of material misstatement lower than auditor in scope of specific information

# METHODOLOGY

The experimental design is a pretest-posttest control group design. Shadish, Cook and Campbell (2002) explained that the advantage of group control design with pretest and posttest is to prevent threats on

internal validity. An experiment is done by holding audit simulation in an audit seminar. The experiment in general can be described by the matrix in table 1.

Table 1: Matrix of Experiment

		Financial Information of Client	
		Before	After
Scope of	Specific	Cell 1	Cell 2
Information	Holistic	Cell 3	Cell 4

This table shows the experiment matrix.

Table 1 shows a four cell experimental with the first factor, scope of information, consisting of two levels: specific information and holistic information. The second factor, financial information of the client consists of before and after presentation. Cell 1 is a group with specific information scope before getting financial information. Cell 1 is a group with specific information scope after getting the client financial information. Cell 3 is a group with holistic scope information before getting client financial information. Cell 4 is a group with holistic scope information after getting financial information of the client.

Experimental subjects are auditors (junior, senior, manager and partner) in Surabaya City, Indonesia's second biggest city, with a large quantity of CPA firms. The design is by completely randomized design done by dividing a two-type audit simulation module to subjects randomly. Therefore, each subject gets the same opportunity to be in the experimental group or control group.

The information is manipulated by two levels, specific and holistic scope of information. The information consist of quantitative and qualitative client conditions with holistic and specific scope, given from partner to auditor. The specific information scope is adapted from Dilla and Stone (1997) and Booker, Drake and Heitger (2007). Participants with specific information were given sales account information in words only, without mentioning any relative comparison. The words that explain the client situation in specific information contain an explanation with the exact condition. This research uses the term holistic information scope as being opposite of specific information. The holistic information presented sales account information in the form of numbers, words and a relative comparison as in Booker, Drake and Heitger (2007). The words that explain the client situation in the holistic information contain explanations with uncertainty conditions. For example, the holistic scope of information stated that the increase of sales in 2012 is 17.76% relative to the previous year. The specific scope of information stated that sales in 2012 had increased.

The risk of material misstatement on the sales account was measured with an analytical test score 1 (very low) to 7 (very high). Participant also determine the risk of material misstatement on cost of goods sold, but for data processing, only the risk of material misstatement on sales account. The determination of risk of material misstatement for cost of goods sold aims to hide manipulation and reduce demand effects. Neuman (2010) explained that demand effects occurred when participants knew the purpose of manipulation given as well as the research objective, so they behaved the same as expected in the research objective.

Instrument covers case material and lists of general questions (demography), manipulation checking questions and questions related to dependent variables. The whole instrument, measurement, and questions used in this research would be through some processes. Interviews were conducted with practitioners (public accountant), personal interview (manager of retail distribution), focus group discussion/FGD with an audit lecture in a private university that has a good relationship with public accountant firms in Indonesia, and a pilot test in a small group (students in postgraduate program in Central Java and Yogyakarta City at Indonesia).

The experimental instrument is a convincing client profile for a minimarket distributor company that is presented with a short-duration video (5 minutes). The company illustration differs from the previous research because this research has the additional visualization in the form of pictures and video. The use of visualization gives a positive impression that triggers the halo effect. The minimarket distributor company has a similarity with a big minimarket distributor in Indonesia that has a franchise system. We named the minimarket distributor company Jackomart.

The purpose of the manipulation check is to determine that the manipulation given to subjects can be understood and to help increase internal validity (Neuman, 2010). The manipulation check is comprehensive questions of holistic/specific information scope consisting of three questions. The questions relate to the client's information given by choice with an alternate answer. The subject is asked to choose the right answers. If the subject answer 2 of 3 questions correctly, she pass the manipulation check, and the data is used.

At the beginning stage, descriptive statistic of the subject's demographic characteristic are presented. Randomization effectiveness testing based on information scope and mitigation strategy in eliminating individual characteristic differences between groups is done by One Way ANOVA. Halo effect detection on the subject is addressed by questions on the condition of the client including minimarket management, distribution system, and financial performance based on a profile video and booklet of the client's company. Responses were provided on a 7-point scale, (1=strongly very bad to 7=strongly excellent).

Hypothesis 1 testing is done with *Pearson correlation* between the risk of misstatement material on sales account 1 (before getting client financial information) and the risk of misstatement material on sales account 2 (after getting client financial information). Hypothesis 2 testing is done by *independent t-test* that compares average risk of material misstatement on sales account 2 (after getting client financial information) between auditor with holistic scope information and auditor with specific scope information.

# RESULTS

The experiment was conducted on February 2<sup>nd</sup>, 2013 at STIE Perbanas Surabaya City, Indonesia. The subject in this research was junior, senior auditor, manager, supervisor, and partners. They were invited to an International Standard Auditing (ISA) Seminar: Experience and Learning of Auditor's Error Typology. The invitation was sent on January 8<sup>th</sup>, 2013 through facsimile, email, and mail to CPA firms in Surabaya City and Malang City, Indonesia. The addresses of CPA firms are based on Directorate of the Indonesian Public Accountant Institute. The number of invitation sent was 51; consisting of 43 for CPA firms Surabaya and 8 for CPA firms in Malang. The total number of CPA firms that registered by February 1<sup>st</sup>, 2013 was 25. The total auditors who registered was 110 people and those who attended the seminar totaled 72. Each CPA firm sent 2-8 people with position of junior, senior auditors, manager or partner.

The participant received a simulation module consisting of module one for halo effect testing and information scope and module 2 for halo effect mitigation testing. The experimental design included two cases. Each module was entitled and covered the same and had the same number of pages. Randomization was done when the module was distributed randomly to the participant, so each participant got the same opportunity to obtain all audit simulation cases.

Characteristic of the research subjects included sex, age, working period, last education, as well as participation in public accountant training and audit training. Table 2 presents the characteristic of the research subjects. Table 2 shows the participants consisted of male (32 person) and female (33 person). The age groups are 22 people in range of 20 to 25 years, 21 people in range 25 to 30 years, 4 people in range of 25 to 40 years old, and 4 people above 45 years old. There are 38 junior auditors, 16 senior auditors, 3 managers, 6 supervisors and 2 partners. The modus of the working period in the range between

1 to 2 years old are 32 people; between 4 and 6 years are 11 persons. Most participants (60 people) have education with an accounting undergraduate.

The risk of material misstatement of sales account 2 is determined after subjects receive the manipulation of holistic or specific information scope. ANOVA testing determines that risk of material misstatement on sales account 2 is not affected by the difference of subject demographic characteristic. The testing result by dependent variable was material misstatement risk on sales account 2 and the independent variable was demographic characteristics including sex, age, position, working period, education, participation in public accountant training and audit training as shown in Table 3.

Information		Total (people)	Percentage
Age			
0	Male	32	49.2
0	Female	33	50.8
Age Group			
0	20 - < 25 years old	22	33.8
0	25 - < 30 years old	21	32.3
0	30 - < 25 years old	9	13.8
0	$35 - \langle 40 \rangle$ years old	4	6.2
0	40 - < 45 years old	4	6.2
0	- > 45 years old	5	7.7
Position			
0	Junior Auditor	38	58.5
0	Senior Auditor	16	24.6
0	Manager	3	4.6
0	Supervisor	6	9.2
0	Partner	2	3.1
Working period			
0	< 1 year	3	4.6
0	1 - < 2 years	32	49.2
0	2 - < 4 years	9	13.8
0	4 - < 6 years	11	16.9
0	6 - < 8 years	4	6.2
0	8 - < 10 years	1	1.5
0	> 10 years	5	7.7
Education			
0	Accounting Undergraduate	60	92.3
0	Non-Accounting Undergraduate	2	3.1
0	Accounting Graduate	2	3.1
0	Non-Accounting Graduate	1	1.5
This table shows demo	ographic data about the sample		

 Table 2: Characteristic of Experimental Subject

his table shows demographic data about the sample.

Table 3: Result of One Way ANOVA test of the Effect of Demographic Characteristic on Risk of Material Misstatement on Sales Account 2

Independent Variable	Df	F-Statistic	Sig
Sex	1	0.154	0.697
Age	5	1.122	0.367
Position	2	0.121	0.886
Working Period	14	0.651	0.803
Education	2	0.658	0.430
Public Accountant Training	1	0.006	0.938
Audit Training	1	0.084	0.773

This table shows the one-way ANOVA analysis results.

Table 3 shows that sex did not affect the risk of material misstatement on the sales account 2 (p=0.697). Age and position in the CPA firm did not affect the risk of material misstatement on sales account 2 with probability value of age (0.367) and position (0.886). Working period did not affect the risk misstatement on sales account 2 with probability value of 0.803. The last education, participation in public accountant training and audit training also did not affect the risk misstatement on sales account 2. The probability value of the last education was 0.430, while public accountant training was 0.938 and audit training was 0.773. Therefore, we conclude that risk of material misstatement on sales account was not affected by differences between subject demographic characteristic.

In the experimental test, we must be careful with experimental error, i.e. accounting and auditing capability of subjects. We test that difference of accounting and auditing proficiency score does not affect risk of material misstatement on sales account 2. Testing of experimental error (score of accounting and auditing proficiency) was done with ANCOVA (analysis of covariate) with dependent variable risk of material misstatement on sales account 2. The independent variable is scope of information and covariate variable is score of accounting and auditing proficiency (Table 4).

Table 4: Testing of Experimental Error (Score of Accounting and Auditing Proficiency) on Scope of Information and Risk of Material Misstatement on Sales Account 2

Independen Variable	Sum of Square Type III	Df	Mean of Square	F-Statistics	Sig
Corrected Model	15.861ª	2	7.931	3.185	0.048
Intercept	18.910	1	18.910	7.594	0.008
Scope of information	15.820	1	15.820	6.353	0.014**
Covariate Variable					
Score of Accounting and Auditing Proficiency	0.585	1	0.585	0.235	0.630
Error	154.385	62	2.490		
Total	1491.000	65			
Corrected Total	170.246	64			

This table shows the ANCOVA tests results. \*\* Significant on 5%

Table 4 shows the score of accounting and auditing proficiency is not significant (0.630) and scope of information as a manipulate variable is significant (0.014). The conclusion is risk of material misstatement on sales account 2 will only be affected by scope of information and not by different accounting and auditing proficiency scores or demographic characteristics.

The first hypothesis stated that because the halo forms an impression of client profile, the risk of material misstatement before getting the client financial information should be positively correlated with the risk of material misstatement for the sales account after getting the client financial information. Table 5 shows the result of the Pearson correlation coefficient for halo effects. The strong correlation between risk misstatement on sales account 1 and the risk misstatement on sales account 2 from the result of *Pearson Correlation* was 0, 349 and significant at 0.004.

Table 5 Pearson Correlation for Halo Effect

	Pearson Correlation
Risk of material misstatement on sales 1 (before	0.349
obtaining information scope)	P=0.004**
Risk of material misstatement on sales 2 (after	
obtaining information scope)	

Pearson correlation coefficient for the halo effect. \*\*. Correlation is significant at the 0.01 level (2-tailed).

The second hypothesis stated that auditor's with holistic information about a client, would determine the risk of material misstatement lower than an auditor with specific information. Information scope given by the partner as the manipulation was information that includes condition of the client's industry, sales, selling cost, and comprehensive preview of the profit/loss report. The result of hypothesis 2 testing is shown in Table 6.

Table 6 shows the results of the second hypothesis testing that was done by comparing the average of sales account 2 risk of material misstatement in the group with specific information scope and the average risk of material misstatement on sales account 2 in the group with holistic information scope. The score pretest in cells with specific information is 4.875 and score of posttest is 4.875. The distribution of specific information occurred in the group with holistic scope, with pretest and posttest scores of 4.818 and 4.030, shows the difference of risk of material misstatement on sales account 2 and risk of material misstatement on sales account 1 between the cell with holistic scope of information and the cell with specific scope of information. The independent t-test shows that significance of that difference is 0.049. This showed that subjects with a high halo effect and given holistic information scope, still had a high halo effect because they still believed the client's condition was in accordance with the convincing beginning assessment.

Table 6: Test of Hypothesis 2

	Average (Std deviation) Score of Halo Effect	Pretest (a)	Posttest (b)	Difference of posttest – pretest c = (b – a)
Cell 1, 2 (N=32)	Specific	4.875 (1.539)	5.000 (1.437)	0.125
Sel 3, 4 (N=35) Levene Test	Holistik	4.818 (1.776)	4.030 (1.686)	-0.788 F=0.048 Sign=0.827
T-test				t= 2.010 sign= 0.049**

This table shows the results of the Hypothesis 2 tests. a: Average (standard deviation) of material misstatement on sales account 1 (before obtaining information scope) b: Average (standard deviation) of material misstatement on sales account 2 (after obtaining information scope) c: Difference of Misstatement Risk of Sales Account 2 and Misstatement Risk of Sales Account 1 \*\* Significant at 0,05

The test results show that hypothesis 2 was supported by the data in this research. Auditors who obtained holistic information about the client would determine a lower risk of material misstatement compared to those who obtained specific information. This finding supports the occurrence of a halo effect in the auditor receiving partner information about the condition of a client with holistic or specific information scope. Auditors with a high halo effect and obtaining information from the partner with holistic scope was still impressed by the client's sound initial assessment, so the attached halo effect would affect the risk assessment of material misstatement of sales account 2 to be similar to the assessment of sales account 1 material misstatement risk. The opposite condition occurred for an auditor with a high halo effect and obtaining information from partner with specific scope. Although it had a positive impression in the initial assessment of the client, it would determine the risk of material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement of sales account 2 higher than the risk of sales account 1 material misstatement.

#### DISCUSSION

The findings here confirm the result of previous research (O'Donnel and Schultz, 2005; Grammling, O' Donnel and Vandervalde, 2010) that halo effect phenomenon occurred among auditors. O'Donnel and Schultz (2005) found that when an auditor conducted a strategic assessment at the beginning (before analytical procedure) then, the risk of material misstatement was lower than an auditor who conducted strategic assessment at the end (after analytical procedure). Strategic assessment on the risk of the client's business done at the beginning, in the research of O'Donnel and Schultz (2005) caused the emergence of a halo effect, so it affected the risk of material misstatement after obtaining information of other clients. The result of assessment in overall positive business risk of the client created mental

representative in memory. It was easily memorized when facing an assignment to conduct the risk of material misstatement on detailed account information.

Auditors with client assessment that is positive and impressive, would use the positive impression to conduct positive initial assessments on other assessment attributes before obtaining other information (financial or non-financial) in more detail. A Positive initial assessment on an object effects positive assessment on other attributes from the halo effect.

Information from the partner as part of a client's business and industry understanding stage could be given in holistic and specific scope. Holistic scope information is overall information containing relative information on client's condition, while specific information is overall information and does not contain information of account balance comparison. Holistic scope information has potential to result in the emergence of a high halo effect that is marked by decreasing accuracy of auditor professional judgment. Specific scope information has the potential to create a lower halo effect than holistic scope information. This condition impacts the accuracy of auditor professional judgment on auditor specific information scope is better compared to the accuracy of auditor professional judgment on auditor of holistic information.

The result of this research indicates that in professional judgment, the auditor as an individual has cognitive limitations. Initial assessments on a convincing condition of the client is used as a comparison (representativeness heuristic) when conducting assessment on detail information of account balance. The instrument of this research presented information of account balance containing misstatements as part of the partner's information of holistic/specific scope. Halo effects emerge when the auditor conducting an initial assessment on the condition of the client, after watching video and reading a booklet from client's company profile, can be seen from a very good initial assessment on the condition management, distribution system and financial performance. This halo effect is brought forward when conducting initial assessments on the risk of material misstatement on sales account 1 and the risk of material misstatement on sales account 2.

This research result confirmed the statement from Hogarth (1987) that a person would remember more the information that reflects more detailed characteristics or information attributes. Holistic scope information may cause auditor professional judgment that is less accurate.

# CONCLUSION AND FUTURE RESEARCH

The objective of this study is to examine auditor judgment about the risk of material misstatement on sales accounts in a convincing client profile and in inconsistent fluctuation of account. We use a 2X2 between subjects experimental design to execute the research. The subject in this research was junior, senior auditor, manager, supervisor, and partner that were invited to an International Standard Auditing (ISA) Seminar: Experience and Learning of Auditor's Error Typology.

One key finding of our study is the halo effect phenomenon occurred on auditors, and auditors with holistic information scope would determine the risk of material misstatement that was less accurate compared to auditors with specific information scope. Auditors with the assessment of a client's initial condition that was convincing would have a high halo effect. So, they received information from a partner that was holistic in scope and would encourage the auditor to determine low misstatement risk. This is because the auditor still carried the impressive assessment on condition of client, so they assumed that the client had low misstatement risk. The findings in this research explain that an auditor with a high halo effect and receiving specific scope information from the partner would determine risk of material misstatement higher than an auditor with a high halo effect who receives holistic scope information.

The previous research that investigated halo effects in of psychology or marketing showed that an individual had limitations in receiving and processing information. In the field of auditing, the halo effect investigated by O'Donnel and Schultz (2005) as well as Grammling et al., (2010) showed the profession demanding high professional skepticism, could not be separated from the halo effect. The previous research has not conducted a test of the means of halo effect mitigation that are reflected in inaccuracy of auditor's professional judgment.

The result of this research gave description to the auditor that halo effects could occur, especially on less experience auditors. CPA firms needed to anticipate this matter through various training. A novice auditor who usually received an analytical procedure assignment in the planning stage, was more suitable to be given specific scope information rather than holistic scope information.

This study has three limitations. First, the experimental case materials use a positive halo effect. Further research can include a negative halo effect and determine risk of material misstatement. Second, the context of analytical procedures is in the initial hypothesis. Further research is expected to improve the experiment materials in another audit test, in substantive tests or in analytical procedures in the final evaluation phase. Third, this research focus on individual judgment. Future research may examine group decision making.

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