Accounts Receivable Confirmation Usage And Effectiveness: Perceptions of Practicing CPAs

Jack L. Armitage, Accounting, University of Nebraska at Omaha

Abstract

This paper reports the results of a questionnaire survey of practicing auditors regarding their assessment of the competence and effectiveness of the accounts receivable confirmation auditing procedure. The respondents indicated they regularly use positive and negative confirmations in practice, and they rated the evidence provided by negative confirmations as significantly lower than for positives. Also, the respondents perceived the detection rate for positive and negative confirmations to be 20 to 40 percentage points higher than rates reported from empirical research. Thus, auditors may be over-estimating the effectiveness of this auditing procedure and facing higher levels of audit risk than they anticipate.

Introduction

The direct confirmation of accounts receivable balances with third parties is an auditing procedure that is firmly established and widely used by the auditing profession. Accounts receivable is an important audit area because it is often material in amount, and accounts are susceptible to errors and irregularities. However, the effectiveness of this procedure has come under critical review over the last two decades (Armitage, 1990; Davis, Neter, and Palmer, 1967; Hubbard and Bullington, 1972; Sauls, 1971 and 1972; Sorkin, 1978; and Warren, 1973). Although there has been no consensus on error detection rates for the different confirmation forms, the previous research has established that accounts receivable confirmations do not discover all errors in accounts that are confirmed. If auditors are aware of the relative effectiveness of this procedure when planning and conducting their audit, they can control audit risk at an acceptable level by accurately assessing the competence of the evidence they have gathered. However, if auditors over-estimate the effectiveness of the accounts receivable confirmation procedure, auditors may not be controlling audit risk at an acceptable level.

Purpose

The purpose of this paper is to report the results of a survey of practicing CPAs regarding their usage of accounts receivable confirmations in practice, and their assessment of the competence and effectiveness of this auditing procedure.

Type of Confirmations

There are four types of accounts receivable confirmation forms. Positive confirmations request recipients to reply directly to the auditor whether they agree or disagree with the stated account balance. Negative confirmations, on the other hand, request recipients to reply only if they disagree with the stated account balance. The blank form of confirmation does not provide the recipients a balance to verify, but instead asks the recipients to supply the account balance and reply directly to the auditors. Finally, the expanded field confirmation is similar to the positive form, but the expanded field includes two or more amounts (the correct account balance and one or more incorrect amounts). The recipients are requested to select the correct amount from the choices and reply directly to the auditor.

Prior Research

Several research studies have examined accounts receivable confirmation effectiveness by measuring the error detection rate for confirmation of intentionally misstated account balances. The error detection rate was computed as the percentage of the detections of misstated account balances returned by customers, to the total of all the intentionally misstated confirmations sent.

Davis, Neter, and Palmer (1967) conducted a simulation study and reported an error detection rate of 59 percent for positive confirmations and 44 percent for negative confirmations. A major limitation of this study

was that the procedure was not confirming account balances, but instead asked for confirmation of a code number printed on the bank statement.

Sauls reported the results of two accounts receivable confirmation studies. In a study involving a university credit union (Sauls, 1971), 59 intentionally misstated positive confirmations were sent out and resulted in a detection rate of 76 percent. No negative confirmations were used in the study. In a study involving a bank (Sauls, 1972), 30 misstated positive confirmations were sent out confirming loan accounts, and resulted in a detection rate of 43 percent. No second requests for the positive confirmations were sent and again negative confirmations were not used in the study. Sauls' studies were limited by small sample sizes, no second requests for positive confirmations, and not using negative confirmations.

Hubbard and Bullington (1972) conducted a study involving a petroleum products distributor. They sent out 68 positive and 68 negative intentionally misstated confirmations confirming customers' account balances. Misstatements ranged from 3.8 to 6.4 percent of the account balance for the positive confirmations and from 1.7 to 3.1 percent for the negative confirmations. The mean misstatement for all accounts was $1.94. Their reported detection rates were 48 percent for the positive confirmations, and 40 percent for the negative confirmations.

Warren (1973) conducted a study utilizing a university credit union. Misstated positive confirmations were sent out confirming 144 loan accounts and misstated negative confirmations were sent out confirming 116 loan accounts. Misstatements were either 10 percent or five percent of the account balance with a mean 10 percent misstatement of $44.78 and a mean five percent misstatement of $22.39. Reported results for the positive confirmations were 32 percent for the loan accounts and the detection rate for negative confirmations was 18 percent.

Sorkin (1978) conducted a study involving loan accounts of a large bank. He used 408 misstated positive, 415 misstated negative, and 793 misstated expanded field confirmations. Misstatements were either six percent or two percent of the account balance with a mean six percent misstatement of $110.98, and a mean two percent misstatement of $4.80. The study reported a 35 percent detection rate for the positive confirmations, a detection rate of 18 percent for the negative confirmations, and 66 percent for expanded fields.

In a recent study, Armitage (1990) reported the results of a study involving a manufacturing company. Two hundred misstated positive and 200 misstated negative confirmations were used, with misstatement factors of five and 10 percent, and a mean intentional misstatement of $297. The reported detection rates were 38 percent for positive confirmations and 16 percent for negative confirmations.

Methodology

The target population for this study consisted of individual members of the AICPA that were auditors and involved in the practice of public accounting. A random sample of 300 members was obtained from the AICPA membership. If the recipient of the questionnaire had no involvement in auditing, they were asked to give it to an auditor in their firm, or return the questionnaire. Thirty nine questionnaires were returned for this reason.

The mailing consisted of a cover letter, questionnaire, and postage paid return envelope. Approximately four weeks later, second requests were mailed to nonrespondents of the first mailing.

The questionnaire consisted of three parts which related to usage of accounts receivable confirmations in practice, effectiveness of confirmations, and demographics. A pilot test resulted in some modifications and indicated the questionnaire required about 15 minutes to complete.

A test for nonresponse bias was conducted (Oppenheim 1966, pp. 34-35). No significant differences were noted between replies to first requests and replies to second requests.

Results And Discussion

Response Rate

Forty six replies were received to the first request and 45 replies were received to the second request. Out of the original sample of 300, 39 questionnaires were returned from CPAs who had no involvement in auditing, leaving a remaining sample size of 261. The response rate was 34.9 percent computed as the percentage of usable replies out of the adjusted sample. The response rate statistics are summarized in Panel A of Table 1.

Demographics

The respondent demographics are summarized in Panel B of Table 1. Three demographic variables are used in reporting the results of this study. These are years involved in public accounting, size of firm, and percentage of time spent in auditing.

The number of years involved in public accounting for

the respondents ranged from two years to 45 years with a mean of 11.9 years and a median of 10 years. The respondents also provided their current position in the firm. Approximately 15 percent of the respondents held the position of staff accountant or senior, 43 percent were managers, 41 percent were partners or sole practitioners, and one percent identified other positions.

mean number of states in which small firms had offices was 1.6 states, and 85 percent of the firms operated offices in only one state. For large firms, the mean number of offices was 100.7 offices and the mean number of states was 43.3 states.

TABLE 1
RESPONSE RATE AND DEMOGRAPHICS

A. Questionnaire Response Statistics

Questionnaires mailed	300
Returned-not auditors	< 39>
	261
First request replies	46
Second request replies	45
Unusable replies	1
Nonresponses	169
	261
Response Rate	34.9%

B. Respondent Demographics

Years in Public Accounting	Number	Percentage
0 - 5 Years	18	19.8%
6 - 9 Years	26	28.5%
10 - 14 Years	22	24.2%
15 or More Years	25	27.5%
Total	91	100.0%
Mean	11.9 Years	
Current Position in the Firm		
Staff	2	2.2%
Senior	12	13.2%
Manager	39	42.9%
Partner/Sole Proprietor	37	40.6%
Principal	1	1.1%
Total	91	100.0%
Size of Firm		
Small	40	44.0%
Large	51	56.0%
Total	91	100.0%
Time Spent in Auditing		
50% or Less	30	33.0%
More than 50%	61	67.0%
Total	91	100.0%

The firms in which the respondents worked were classified as either small or large for data analysis. Forty four percent of the firms were small firms and 56 percent of the firms were large firms. These divisions were used because of natural breaks in the data that lent themselves to using only two size divisions rather than the usual three way classification of firms as either local, regional, or national.

The size of the firm variable was based on the number of offices the firm operated and the number of states in which the firm had offices. For the small firm classification, the mean number of offices was 3.5 with 80 percent of the small firms having only one or two offices. The

The other demographic variable used for data analysis was the percentage of time respondents spent in auditing. Thirty percent of the respondents spent 50 percent or less of their time in auditing and 70 percent of the respondents spent more than 50 percent of their time in auditing.

In summary, the respondents from small firms tended to spend 50 percent or less of their time auditing, and they had worked more years in public accounting than respondents from large firms. The respondents from large firms tended to spend more than 50 percent of their time auditing, and they had worked fewer years in public accounting than respondents from small firms.

Usage

The first group of questions on the questionnaire dealt with usage of accounts receivable confirmations in practice. Summaries of the responses to those questions are shown in Table 2.

Respondents were asked to indicate what types of confirmations were currently used by their firm. The replies indicated that positive, negative, and blank forms were the most widely used types of confirmations, and the expanded field confirmation has not received much use. These results support the statement in the AICPA's Auditing Procedure Study *Confirmation of Accounts Receivable* (AICPA 1984, pp. 18-19) that the expanded field confirmation is considered experimental and is very rarely used in practice.

SAS No. 1 (AICPA 1990, AU 331.07) states that accounts receivable confirmations can be used to confirm account balances, specific transactions, or both. In responding to a question about how confirmations are applied, 57 percent of the respondents indicated their firm confirms account balances. Only one respondent reported confirming only specific transactions, and all others reported they confirm both account balances and specific transactions.

The next question examined respondents' perceptions of changes in the usage of accounts receivable confirmations during the time they worked in public accounting. About two-thirds of the auditors answered that they have seen no change in the usage, while slightly less than one-third of the auditors reported they have seen decreased usage of the procedure. For auditors with ten or more years in public accounting, nearly one-half of the respondents indicated they have noticed decreased usage. This result may be because of increased emphasis on analytical procedures with the result of less emphasis on substantive procedures at the individual accountant level.

Respondents were next asked for the average response rate that they encounter in practice for positive confirmations. The mean response was 68.5 percent. This result compares with response rates for correctly stated positive confirmations reported from empirical studies of 79 percent (Hubbard and Bullington, 1972), 75 percent (Warren, 1975), and 78 percent (Armitage, 1990).

The next two questions asked the respondents what they considered the most cost effective procedure to establish the existence and collectibility of an account receivable. Relating to the existence question, 59 percent of the respondents indicated that confirmation of accounts was the most cost effective procedure while 33 percent said that vouching the subsequent payment was the most cost effective procedure. For establishing the collectibility of an account, 84 percent of the auditors reported vouching the subsequent payment as the most cost effective procedure.

Effectiveness

The next section of the questionnaire examined the auditors perceptions of the effectiveness of confirmations. Table 3 summarizes the replies to those questions.

The respondents were asked to indicate what they considered the competence of the evidence provided by each of the confirmation types, by rating them on a five point scale. Overall, the confirmation types were ranked with the positive confirmation as providing the most competent evidence, followed by the blank confirmation, expanded field, and negative confirmation. When analyzed by firm size and time spent auditing, the rankings did not change. It is interesting to note that auditors with five years or less experience in public accounting ranked the blank confirmation as providing the most competent evidence. Also, the negative form of confirmation was indicated to provide the least competent form of evidence, yet from the previous question it was indicated that auditors use negative confirmations far more than expanded fields. There was a statistically significant difference (chi-square analysis, $p<.001$) between the competency of the evidence provided by the four different types of confirmations.

The next group of questions were based on an assumed audit situation. Respondents were to assume their audit client was a manufacturer of home products that sells directly to home owners through numerous sales and service outlets located throughout the U.S. Further, they were to assume their client had total assets of $80,000,000; annual sales of $100,000,000; total accounts receivable of $30,000,000; and 15,000 customers. Finally, it was stated that there were few accounts in dispute between the client and its customers, and internal control over accounts receivable was adequate.

Based on these facts, respondents were asked to indicate the type of confirmations and sample size they would use for this audit. Ninety two percent of the auditors would use positive, negative, or a combination of positive and negative confirmations and the mean sample size was 434 accounts. There was a large differential in sample sizes by the firm size variable and the time spent auditing variable. Respondents from small firms indicated a mean sample size of 647 and those that spent 50 percent or less of their time auditing a mean sample size of 702. This compared to mean sample sizes of 228 and 262, respectively, for respondents from large firms and those that spent more than 50 percent of their time auditing. This difference may

TABLE 2
USAGE OF CONFIRMATIONS IN PRACTICE

Question: What types of confirmations are used by your firm?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive Only	20	8	12	7	13	5	8	3	4
Positive and Negative	35	17	18	10	25	5	8	13	9
Positive, Negative, and Blank	28	9	19	7	21	7	10	4	7
Other	8	6	2	6	2	1	0	2	5
	91	40	51	30	61	18	26	22	25

Question: Do you usually confirm account balances, specific transactions, or both?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Account balances	53	27	26	19	34	13	14	14	12
Specific transactions	1	0	1	0	1	0	1	0	0
Both	37	13	24	11	26	5	11	8	13
	91	40	51	30	61	18	26	22	25

Question: During the time you have worked in public accounting, have you seen a change in the usage of accounts receivable confirmations?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Increased usage	2	1	1	1	1	1	1	0	0
Decreased usage	29	14	15	10	19	2	5	10	12
About same usage	60	25	35	19	41	15	20	12	13
	91	40	51	30	61	18	26	22	25

Question: Approximately what response rate do you experience for positive confirmations?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Mean response rate	68.5%	72.5%	65.6%	72.6%	66.7%	68.7%	67.1%	68.7%	69.9%

Question: What do you consider the most cost effective auditing procedure to establish the existence of an account receivable?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Confirmation	53	23	30	16	37	12	14	12	15
Vouch subsequent payment	30	14	16	11	19	5	9	8	8
Other	7	3	4	3	4	1	3	1	2
	90	40	50	30	60	18	26	21	25

Question: What do you consider the most cost effective auditing procedure to establish the collectibility of an account receivable?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Vouch subsequent payment	76	30	46	23	53	17	21	19	19
Confirmation	9	7	2	5	4	0	3	1	5
Other	5	3	2	2	3	1	2	1	1
	90	40	50	30	60	18	26	21	25

TABLE 3
EFFECTIVENESS OF CONFIRMATIONS

Question: What do you consider the competence of the evidence provided by each of the following types of confirmations?

Responses: Based on a five point scale, with 1=excellent and 5=poor.

		Firm Size		Auditing Time		Years in Public Accounting			
Mean Response For	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive confirmation	2.00	2.05	1.96	2.07	1.97	1.94	1.96	2.14	1.96
Blank confirmation	2.36	2.53	2.23	2.63	2.22	1.69	2.23	2.71	2.73
Expanded field	2.78	2.83	2.86	2.79	2.88	2.88	3.09	2.92	2.57
Negative confirmation	3.59	3.63	3.60	3.57	3.63	3.47	3.69	3.27	3.84

For the following questions, respondents were asked to base their answers on the following auditing situation: Assume you are auditing a manufacturer of home products that sells directly to home owners through numerous sales and service outlets located throughout the U.S.; the client has total assets of $80,000,000; annual sales of $100,000,000; total accounts receivable of $30,000,000; 15,000 customers; there are few accounts in dispute between the client and its customers; and internal control over accounts receivable is adequate.

Question: What type of accounts receivable confirmations would you use for this audit?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive only	35	14	21	11	24	6	13	8	8
Negative only	10	5	5	4	6	3	1	3	3
Positive and Negative	35	14	21	9	26	8	7	9	11
Other combinations	7	5	2	5	2	0	3	1	3
	87	38	49	29	58	17	24	21	25

Question: What sample size would you select for confirmation?

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Mean response	434	647	228	702	262	383	150	427	730

Question: If there are a significant number of errors in the sample you have chosen for confirmation and each error is overstated by 10%, what percentage of the errors do you think would be detected by the confirmations if the accounts were confirmed by:

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive confirmations	74.4%	74.8%	74.1%	73.8%	74.8%	64.7%	76.4%	78.9%	77.4%
Negative confirmations	45.6%	47.6%	43.7%	45.5%	45.6%	42.2%	46.3%	57.0%	38.4%

Question: If there are a significant number of errors in the sample you have chosen for confirmation and each error is overstated by 5%, what percentage of the errors do you think would be detected by the confirmations if the accounts were confirmed by:

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive confirmations	68.1%	68.4%	67.8%	67.3%	68.4%	58.3%	69.1%	70.0%	73.8%
Negative confirmations	39.5%	42.7%	36.5%	41.0%	38.7%	37.5%	36.0%	48.0%	36.8%

Question: If there are a significant number of errors in the sample you have chosen for confirmation and each error is understated by 5%, what percentage of the errors do you think would be detected by the confirmations if the accounts were confirmed by:

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive confirmations	54.5%	53.0%	55.9%	52.4%	55.5%	40.3%	57.2%	67.9%	53.5%
Negative confirmations	25.6%	27.1%	24.1%	27.1%	24.8%	20.7%	21.4%	38.9%	21.8%

Question: If there are a significant number of errors in the sample you have chosen for confirmation and each error is understated by 10%, what percentage of the errors do you think would be detected by the confirmations if the accounts were confirmed by:

		Firm Size		Auditing Time		Years in Public Accounting			
	Total	Small	Large	0-50%	> 50%	0 - 5	6 - 9	10 - 14	15 or More
Positive confirmations	55.2%	51.9%	58.3%	51.3%	57.0%	44.0%	57.8%	66.8%	53.1%
Negative confirmations	24.6%	26.3%	22.8%	27.4%	23.1%	18.0%	21.4%	38.5%	20.3%

be because auditors from small firms might not have experience with a client of the size in the assumed situation.

Next, the respondents were asked to indicate the percentage of errors they believe would be detected using positive confirmations and negative confirmations, if the receivables contained a significant number of accounts with five and 10 percent errors both overstated (in the company's favor) and understated (in the customers' favor). For 10 percent overstatement errors, the respondents indicated that 74.4 percent of the errors would be detected using positive confirmations and 45.6 percent of the errors would be detected by negative confirmations. These results can be compared with detection rates of 52 percent for positive confirmations and 30 percent for negative confirmations as reported by Armitage (1990, p. 20-21).

For five percent overstatement errors, the respondents indicated detection rates of 68.1 percent for positives and 39.5 percent for negatives. These results can be compared with detection rates of 42 percent for positives and 22 percent for negatives as reported by Armitage (1990, p. 20-21). Warren (1975, p. 87-89) reported detection rates of 32 percent for positive confirmations overall and 18 percent for negative confirmations overall, and by direction of misstatement, he reported detection rates of 32 percent for overstatement errors and 17 percent for understatement errors.

For five percent understatement errors, the respondents to the questionnaire indicated detection rates of 55.2 percent for positives and 24.6 percent for negatives. These results compare with detection rates of 32 percent for positives and four percent for negatives as reported by Armitage (1990, pp. 20-21).

For 10 percent understatement errors, the respondents to the questionnaire indicated detection rates of 54.5 percent for positives and 25.6 percent for negatives. These results compare with detection rates of 26 percent for positives and 10 percent for negatives as reported by Armitage (1990, pp. 20-21).

Conclusion

This paper reported the results of a questionnaire survey of practicing auditors. The respondents indicated they regularly use positive and negative confirmations in practice, and they rated the evidence provided by negative confirmations as significantly lower than for positives. Also, the respondents perceived the detection rate for positive and negative confirmations to be 20 to 40 percentage points higher than rates reported from empirical research.

The significance of these results is that in all cases the practicing auditors believed the detection rates for accounts receivable confirmations were much higher than what has been reported in previous research. For both types of confirmations, and for both understatement and overstatement errors, detection rates based on perceptions of practicing CPAs were 20 to 40 percentage points higher than detection rates found in empirical research. This may indicate that auditors are placing too much reliance on the confirmation procedure to detect errors in account balances.

Suggestions For Future Research

There are still important unanswered questions regarding the effectiveness of accounts receivable confirmations, as well as the effectiveness of most other substantive audit tests. One important question that needs to be addressed is whether differences exist in the effectiveness, and the auditor's perceptions of effectiveness, for accounts receivable confirmations due to different types of customers (e.g., individuals, businesses, or governmental customers), and customers in different industries. Another area that needs additional research is how auditors use information about effectiveness of audit procedures in establishing the audit risk for an engagement and how much adjustment to audit risk must be made for a procedure's lack of effectiveness. ❧

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