

Audit Case Study of Revenue Projects at China Merchators Transportation Technology

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Abstract. With the increasing reliance of the whole society on audit reports in recent years and the growing attention paid to the audit industry, accounting firms should make new progress in the new era. Since the implementation of the new revenue recognition standards for all listed companies in China from January 1st, 2020, there have been many deficiencies in revenue auditing. In 2022, the Chinese Institute of Certified Public Accountants (CICPA) issued the 'Notice on the Audit of Annual Reports of Listed Companies for 2022,' in which the first item in the listed high-risk audit areas was revenue audit. Based on this background, this paper starts from the audit case of revenue projects of China Merchants Transportation Technology (Chongqing) Co., Ltd. (hereinafter referred to as: CMTT) by Shine Wing Certified Public Accountants. By analyzing the revenue audit process and the deficiencies occurring in the revenue audit of the accounting firm, it puts forward suggestions on how the accounting firm can better promote the audit work, in order to reduce audit risk, improve audit efficiency, and increase the reliability of the audit report. This paper describes the revenue audit process of CMTT and analyzes the shortcomings of the accounting firm in the audit work from various work behaviors. Secondly, guided by the goal of improving audit efficiency, it proposes suggestions for optimizing audit work, perfecting audit procedures, and improving audit quality. This paper discusses the practical application of the revenue audit of CMTT by the accounting firm, providing a reference for similar enterprises.

Keywords: Financial Statement Audit; Revenue Project Audit; Audit Efficiency.

1. Introduction

1.1. Research Background

Currently, with the continuous development and improvement of China's market economy system, audit services play a crucial role in the market. In audit services, accounting firms accept engagements to inspect and verify relevant work of the audited entity and ultimately issue an audit report. The outside world gains a further understanding of the audited entity based on whether the opinion in the audit report is unqualified. Investors can judge the reliability of the information disclosed by the audited entity based on the audit report to decide whether to invest or engage in other cooperation with the audited entity. Since January 1st, 2020, the new revenue recognition standards have been implemented for enterprises in China. The new standards introduce new stipulations for revenue recognition conditions, requiring adjustments to the revenue recognition methods of most enterprises and changes to relevant accounting subjects. Therefore, revenue is a key focus area for the audit team when auditing enterprises.

With the accelerating process of urbanization and the continuous advancement of the goal of building a moderately prosperous society in all respects, China's requirements for transportation, highways, and other facilities are constantly increasing, leading to closer attention on related industries and continuous policy and subsidy support for relevant enterprises. During the continuous development of enterprises, to reduce malpractices such as enterprises taking advantage of policy support for fraud, it is even more necessary to be vigilant and strengthen prevention during audits, applying the rigorous attitude and professional ethics of certified public accountants and relevant audit personnel to the audit work of enterprises.



1.2. Research Significance

This paper uses case study and literature research methods to analyze the case, introduces relevant theories such as risk-oriented audit theory and fiduciary economic responsibility theory, aiming to conduct research on how to improve efficiency and ensure quality in revenue auditing. It explores the revenue audit procedures of the audited entity in financial statement audits, and subsequently proposes suggestions for the shortcomings identified in revenue audit work. As a central state-owned enterprise, the Group plays a representative role in the transportation industry in Southwest China and nationwide. Its business spans across the country and many foreign countries, involving not only engineering construction but also numerous ongoing R&D projects, with a large and complex volume of business. Therefore, conducting research on its revenue audit is of crucial importance.

2. Literature Review

2.1. International Research Status

Regarding revenue auditing, Scanlon and Belliston (2014) believe that the timing and measurement of revenue recognition should be the focus, noting that revenue recognition should be based on specific contract terms. Seidd, Timothy (2014) suggests that during the revenue audit process, CPAs can consider substantive audit procedures related to internal controls and the sales cycle process. This case also emphasizes that strengthening tests of internal controls over contract management can effectively identify related risks in the audited entity.

Regarding audit strategies for revenue, Hylas and Ashton (1982) indicated early in their research that performing analytical procedures is of great significance in audit work, playing an important role in detecting material misstatements and guiding the audit process; it is an audit procedure very conducive to improving audit efficiency.

Regarding audit risk, Joshua Onome Imoniana et al. (2016) proposed that corporate audit risk is the sum of audit risk and service risk; Xianchang Liu (2018) believed that the professional knowledge and working ability of the audit team members performing the audit work play a crucial role in their ability to issue objective, fair, and correct audit opinions. Continuous and targeted teaching of professional knowledge and skills to audit team members can help auditors more accurately identify material misstatement risks in the statements. Zhao Qi (2019) stated in his research that Chinese CPA firms are increasingly involved in litigation cases, and the industry should jointly focus on how to avoid audit risk; The on-site in-charge during the audit process plays a leading role in the entire audit work. PorcunaEngruix Luis (2021) et al. believed in their research that the audit team leader plays an important role in the assessment of expected audit risk. Audit risk assessment is crucial, and relying more (or less) on the internal controls implemented by the client leads to the performance of fewer (or more) substantive audit procedures, which is determined by the audit team leader based on their professional judgment and past experience.

2.2. Domestic Research Status

Revenue is important data expressing the operating status of an enterprise, and many professionals and scholars have conducted in-depth research on revenue auditing. Xing Mingqiang and Qi Yao (2018) believe that the emergence of the new revenue recognition standards has had a significant impact on revenue auditing. To ensure audit quality, CPAs should attach great importance to the sales and collection cycle, and when formulating the audit plan, they should treat the aspects changed by the new standards as a key audit area, allocating more audit resources to it.

Regarding revenue audit risk, Zhu Guangyin et al. (2014) believe that the 'risk' in risk-oriented auditing refers to business risk. Risk-oriented auditing analyzes risks in business operations to assess the risk of material misstatement, thereby determining and performing audit procedures; Li Hong (2015) proposed that in audit practice, the key is how to integrate risk-oriented auditing throughout the entire audit process, combining the assessment of audit risk with substantive testing. The depth

of implementation of audit procedures should be justified, striving to minimize over-auditing or under-auditing, reasonably allocate audit resources, and thereby improve work efficiency and audit quality. The implementation of the new revenue recognition standards has undoubtedly brought considerable impact to the financial accounting of enterprises. Wang Xia (2020) proposed that the new revenue standards increase the use of accounting estimates, expand the scope for company management to manipulate earnings, and also increase the number of revenue recognition items and the complexity of transaction price allocation. In this regard, regulatory authorities should further optimize management, and enterprises should also improve internal control processes and strengthen the training of financial personnel. CMTT is involved in survey and design services in its operations. The new revenue standards adopt a ‘five-step’ framework, making the financial accounting of enterprises more closely linked to the performance of contracts. In this context, Zou Haokun (2022) proposed that a sound management system should be established for financial accounting, compensation incentives, etc., viewing the implementation of the new revenue standards as a good practice to enhance the enterprise's operation and management capabilities.

2.3. Literature Review

Through the above literature, it can be seen that research on revenue auditing has never stopped, and many scholars domestically and internationally have expressed their views on it, mainly analyzed from empirical and case study perspectives. Auditors should maintain their independence when performing work, but this alone is not sufficient for audit work; they must also possess audit professional knowledge, professional ethics, and basic literacy. With the comprehensive implementation of the new revenue recognition standards, in revenue audit work, focus should be placed on areas related to the changes in the standards, vigilance should be heightened, and omissions reduced.

3. Audit Case Introduction

3.1. Introduction to ShineWing Certified Public Accountants

ShineWing Certified Public Accountants is a professional service institution established early in China with a long operating history, pioneering among accounting firms, and having 7 years of experience in joint ventures with large international accounting firms. After more than 30 years of development, ShineWing has truly achieved group-wide, integrated management and international development, initially forming a ‘Shared Service Center’ management model, and has become a comprehensive professional service institution with significant domestic brand influence and international service capabilities. ShineWing has four parallel business segments: Audit and Assurance, Management Consulting, Tax Services, and Engineering Management. Meanwhile, ShineWing is also the first professional service institution to go abroad, establish branches overseas, and form a self-controlled international network brand. Financial statement audit business is the core business of ShineWing. In the process of long-term provision of excellent professional services, the company has gained the trust of clients, received recognition from many political leaders, and earned a high reputation within the industry.

3.2. Introduction to CMTT

China Merchants Transportation Technology (Chongqing) Co., Ltd. (Abbreviation: CMTT) was established in the early 21st century based on a national announcement, restructuring from a former ministry research institute, and became a wholly state-owned enterprise through investment, with a registered capital of approximately 800 million RMB and a long-term business term. CMTT was identified by the three national ministries - the Ministry of Science and Technology, the State-owned Assets Supervision and Administration Commission of the State Council, and the All-China Federation of Trade Unions - as one of the first pilot units for national innovative enterprises. It was officially recognized as one of the first batch of national ‘Innovative Enterprises.’ It is mainly engaged

in scientific research and development, survey and design, testing and inspection, product manufacturing, engineering construction, technology transfer, technical consulting, and engineering general contracting in the basic engineering fields of the highway industry and municipal industry. It continuously applies scientific and technological innovation achievements to provide technical services for national highway transportation construction. The enterprises under the group possess relatively complete qualifications for the highway and municipal industries, most of which are Class A qualifications, providing strong guarantees for the company's business operations in related industries.

3.3. Audit Plan Arrangement for CMTT by the Accounting Firm

To carry out the revenue audit work effectively, the audit team assigned an intermediate auditor and a junior auditor to be responsible for the main work of revenue auditing, with voucher sampling assisted by an intern. The audit team prepared an Audit Strategy Memorandum for the audit of CMTT. They gained a comprehensive understanding of CMTT, including its basic situation and industry development status. The audit team listed the main accounting characteristics of CMTT, including revenue recognition policies and inventory policies. The revenue recognition policy mainly explained the new revenue recognition standards and matters requiring attention in the enterprise's revenue accounting. The audit team believed that CMTT had established a sound internal control system, which covered the procurement and sales segments in its business activities. Based on its organizational structure and industry characteristics, it had set up a Risk Management Department responsible for the daily inspection and supervision of the implementation of internal controls. The audit team identified key audit areas in the cycles of Sales and Collection, Production and Storage, Procurement and Payment, Investment and Financing, and Fund Management. Among them, operating revenue, accounts receivable & long-term receivables, and notes receivable in the Sales and Collection cycle were identified as key audit areas, with the risk of material misstatement assessed as medium. Analytical procedures combining trend analysis, ratio analysis, and reasonableness tests were planned for operating revenue; trend analysis and reasonableness tests were planned for accounts receivable, long-term receivables, and notes receivable. The memo also specified other special matters requiring attention and substantive procedures. The audit team set materiality levels for both the consolidated financial statements and the parent company's financial statements.

3.4. Audit Procedures for Revenue Projects

This section introduces the audit procedures performed by ShineWing on CMTT, starting from risk assessment, including the analytical procedures and substantive procedures performed on CMTT, and also explains other matters requiring the attention of the audit team members besides the risk of material misstatement.

3.4.1. Performing Risk Assessment Procedures.

The audit team first gained an overall understanding of and preliminarily assessed CMTT. Based on the nature of CMTT, they considered that CMTT's management was relatively stable and of high integrity, and the company had no material misstatement risks at the financial statement level, but there might be material misstatements at the assertion level. Among the accounts related to revenue auditing, operating revenue, accounts receivable, and contract assets were listed as items with risk of material misstatement. During the revenue audit process, they understood the internal controls of the sales process to evaluate the rationality of the system; designed and performed audit procedures and control tests; and obtained audit evidence. For the sales and collection cycle, the audit team members mainly considered: the basic situation of the department, the company's business types and the specific content of each business, how information is transmitted to financial personnel, how standardized sales prices and minimum profit margins for businesses are determined, contract approval and signing processes, how customers are acquired, major customers for each business type, customer stability, the credit evaluation system for customers, how customers' repayment ability is assessed, how receipt confirmation is performed, the payment situation between the company and

customers, payment cycles, etc. The marketing department is also the main force in acquiring customers. CMTT's customers are mainly some government departments, or obtained through bidding, or through cooperation with construction units to develop customers. Contracts are signed using the OA system; bidding approval, contract approval, and contract circulation between departments are all done through the system. Payment terms and timing are written into the contracts, and generally, regular dunning is not performed. Additionally, audit personnel verified whether the collected audit evidence was authentic and existed, whether business occurrences were reasonable through observation and inspection, and observed information about the group and its industry environment.

3.4.2. Performing Analytical Procedures.

Analytical procedures refer to the process where CPAs study and compare financial data ratios and relationships between financial and non-financial data during the audit work to evaluate financial information. When performing analytical procedures, one should first determine which account balances or transactions require analytical procedures, determine their expected values and the identifiable differences from the CPA's perspective, identify differences requiring further investigation, analyze differences in abnormal data, and finally, evaluate the results of the analytical procedures. Before the pre-audit began, the cut-off date for the pre-audit was agreed upon with the group. Data up to the pre-audit period were analyzed first to preliminarily determine risks, and subsequent work was carried out based on the current risk level to identify key areas. After December 31, 2021, when the group closed its books, data that had not undergone analytical procedures received more focused attention.

Table 1. Key Indicators for Analytical Procedures

Item	2021 (Billion CNY)	2020 (Billion CNY)
Net Accounts Receivable	11.15	10.93
Contract Assets	21.56	19.91
Total Assets	86.62	84.80
Total Liabilities	45.35	47.06
Total Owner's Equity	41.16	37.63
Operating Revenue	33.98	31.73
Gross Profit Margin	1.39	0.96
Operating Profit	3.43	2.63
Net Profit	3.25	2.29

3.4.3. Substantive Procedures for Risks of Material Misstatement.

When assessing the risk of material misstatement, the following audit procedures should be considered: first, understand the audited entity's situation and operating environment, and determine risks through the entity's various transactions, account balances, and financial statement disclosures; second, combine the identified risks with considerations for the internal controls to be tested and areas where misstatements may occur; third, evaluate the identified risks and assess whether they are more widely related to the financial statements as a whole, potentially affecting multiple assertions; fourth, review the likelihood of misstatement to assess whether the potential magnitude of misstatement could be material. The level of risk of material misstatement for each account is classified as high, medium, or low. The substantive procedures for the risk of material misstatement in revenue auditing are introduced below.

Table 2. Risk Level Assessment of Related Accounts

Account	Completeness	Existence	Accuracy	Cut-off	Valuation	Rights	Classification	Presentation
Operating Revenue & Cost	Medium	Medium	Medium	Medium			Low	Low
Receivables & Long-term Receivables	Medium	Medium			Medium	Medium		Low
Contract Assets & Liabilities	Medium	Medium			Medium	Medium		Low

(1) Operating Revenue and Cost

Auditors recalculated whether the cumulative cost from commencement for calculating the percentage of completion equaled the cumulative balance in the 'Auxiliary' under 'Production Cost - Basic Production Cost' in the financial ledger. They checked whether the ratio of the final cumulative settlement amount to the estimated total revenue (i.e., output percentage) differed significantly (5%) from the ratio calculated based on the percentage of completion (i.e., input percentage). If a significant difference existed, they analyzed the reasonable cause and documented it in the working papers. They reviewed the calculation of the percentage of completion for the current period and checked for any instances where the percentage of completion exceeded 100%. If such instances existed, they investigated the causes and made corresponding adjustments.

Auditors also calculated the current period revenue gross margin, cumulative revenue gross margin, and contract estimated gross margin. Normally, these margins should be equal. For situations where the cumulative margin and contract margin were equal but the current period margin differed, they checked if it was due to project completion, or final settlement adjustments upon project completion, and collected relevant settlement documents.

They analyzed all projects in the project revenue roll-forward schedule to determine if they met the requirements for recognizing revenue over time under the new standards. They specifically sampled and checked project contracts to see if they contained clauses for compensation upon termination, thereby satisfying the criteria for recognizing revenue over time. For projects already completed and finally settled, they selected some projects to check the difference between the actual final settlement cost and the previously estimated total cost, identifying any material differences (5%).

(2) Receivables and Long-term Receivables

The audit team understood the company's accounting model: after obtaining settlement documents, the entry is Dr: Accounts Receivable Cr: Construction Settlement. Therefore, they focused on the relationship between accounts receivable and construction settlement, verifying it through the general ledger. They collected contracts to review the agreed payment terms, understanding the range of the company's collection ratio for accounts receivable. They checked projects with large negative credit balances in accounts receivable, where there were large receipts but no or small construction settlements, resulting in extremely high or abnormal collection ratios. They checked if this was due to unsigned contracts or unsigned contracts for additional work, preventing settlement. If such situations occurred, they judged their reasonableness based on actual circumstances. If the project volume was large, they promptly documented the matter and sent it to the central team for consolidation.

(3) Contract Assets and Contract Liabilities

Auditors collected the contract settlement schedule, recalculated the schedule to ensure correctness, checked if the cumulative recognized revenue in the schedule agreed with the cumulative revenue in

the engineering revenue calculation sheet, and checked if advance receipts (credit balances in advance receipts/accounts receivable) agreed with the ledger amounts. They checked whether the offsetting of contract assets and liabilities belonged to the same contract. They checked the actual settlement situation for items with large balances in contract assets or liabilities, confirming the authenticity of the settlement amounts recognized in the current period. By verifying the percentage of completion calculated using the input method against the settlement progress (cumulative settlement amount / contract revenue), they checked for significant differences (5%) and whether there was unreasonable early or lagging settlement.

3.4.4. Other Key Focus Areas in Revenue Auditing.

(1) Focus on Related Parties and Their Transactions

After the audit work began, for existing related party transactions, auditors considered the sensitive timing of transactions, whether major transactions between the audited entity and related parties were conducted fairly, whether transaction prices were reasonable, whether arrangements complied with regulations, and whether the transacting party was an unidentified related party, following the arm's length principle and the principle of substance over form. They obtained the list of related parties and the details of transactions with related parties for the current year from the audited entity. Then, they identified transactions with related parties during the year from CMTT's voucher chronological records, checked the general ledger and subsidiary items, and examined whether the audited entity concealed or failed to disclose related party transactions. They checked accounts with infrequent but large-value or frequent transactions with related parties.

(2) Focus on Contingencies, Pending Litigation, and External Guarantees, etc.

They communicated with the company's governance and management to understand the existence of contingencies, pending litigation, and external guarantees; checked the company's materials from the Three Meetings (Shareholders', Board, Supervisory Board) and internal general manager meeting minutes, etc., to understand the existence of significant contingent or guarantee matters; obtained copies of the company's asset ownership certificates, compared them with originals to check for mortgages/guarantees, and simultaneously inquired with banks to obtain the company's credit records and combined them with bank confirmation letters for deposits/loans, comparing them with the company's book records to identify any undisclosed contingencies; auditors also inquired whether subsidiaries had guarantee arrangements with the parent company; based on litigation or consulting fees recorded in management expenses and sales expenses, etc., they sent confirmation letters or made telephone inquiries to CMTT's legal counsel (law firms) to understand the existence of litigation matters and assess their impact.

4. Deficiencies in the Revenue Project Audit Procedures

During the audit of CMTT's revenue by the audit personnel, there were imperfections. Due to the deficiencies in the revenue audit process, the originally planned work deadline was extended, the submission date for the draft was slightly delayed, and staff working hours increased, reducing audit efficiency. This chapter will briefly describe the practices during the process that affected audit efficiency.

4.1. Lack of Rigor in Revenue Cut-off Testing

The audit team assessed the cut-off risk for operating revenue as medium, not high, believing that CMTT's management was relatively stable, that a large state-owned enterprise had good operating conditions, and that the possibility of revenue cut-off errors was low. Therefore, this aspect was not initially a key focus. During subsequent voucher sampling, when auditors browsed the scanned/photographed sampled vouchers, they discovered cut-off issues in the sampled vouchers, which drew attention. They then re-sampled more vouchers for months potentially having cut-off issues, thereby discovering that CMTT indeed had many cost cut-off problems. According to the new

revenue standards, CMTT mainly uses the input method (percentage of completion) to recognize revenue, where cost input directly affects revenue.

When performing audit procedures for revenue auditing, vouchers were sampled according to the plan, but the number of vouchers sampled was small, making the sample unrepresentative. Analysis based on the sample data could not fully represent the overall situation of revenue. CMTT's business covers domestic and international markets with a huge volume; more samples should have been drawn for analysis to potentially discover more issues and loopholes. Due to the insufficient sample size and lack of representativeness, the revenue and cost cut-off issues were missed, as the initially sampled vouchers did not reveal such problems. Later, a brief review of previous work revealed cut-off issues in the sampled vouchers. The auditors responsible for revenue were then arranged to re-sample a certain number of vouchers for revenue and costs at the end of the previous period and the beginning of the current period, which led to the discovery of the revenue and cost cut-off issues.

Table 3. Sampling Status of Cut-off Vouchers

Item	Count/Amount
Number of Vouchers Sampled	27
Number with Cut-off Issues	12
Cost Recognized in 2021 in Sampled Vouchers (CNY)	497,696,376.43
Thereof, Cost that should have been recognized in 2020 (CNY)	46,330,458.70

The auditors sampled approximately 497 million CNY of externally allocated costs recognized in 2021, of which about 46 million CNY should have been recognized in 2020. This matter affected costs by 46 million CNY, revenue by 53 million CNY, and net profit by approximately 7 million CNY.

It can be seen that CMTT had a significant amount of cost cut-off issues. If such problems or more risks within the company remain undetected, it will not only affect audit efficiency but also the reliability of the audit opinion, and cause clients to doubt the professionalism of the auditors and the accounting firm's expertise and reputation. Due to the prior omission by the audit staff, two additional personnel had to be assigned later to re-sample vouchers and re-analyze the data, also affecting work efficiency and delaying the work schedule. This shows that the audit team did not pay enough attention to cut-off issues in revenue and assigned an insufficient risk level assessment to revenue cut-off.

4.2. Failure to Fully Communicate with Experts

CMTT had pending litigation. In 2014, CMTT signed a contract with Shenyang Yuanda Aluminium Industry Engineering Co., Ltd. (hereinafter: Yuanda Company), stipulating that Yuanda Company would provide contracting services for the curtain wall design and construction integration project of the service support area of a regional national transportation technology innovation base in Chongqing; the contract specified the project price, i.e., the total contract price. Because Yuanda Company failed to complete the project within the stipulated time limit, and there were serious quality issues such as large-scale water leakage in some indoor areas during construction due to corner-cutting, and Yuanda Company refused to perform repair obligations, the two parties delayed the settlement and final acceptance. In 2019, Yuanda Company sued CMTT in the local court for failing to pay the project payment, requesting the court to order: CMTT to pay Yuanda Company the project payment, interest on fund occupation, and liquidated damages, and for CMTT to bear the litigation costs of this case. CMTT believed that Yuanda Company failed to complete the decoration project within the contract time limit, and after repeated demands, refused to repair and rectify the serious quality issues of the decoration project, and should bear corresponding liability for breach of contract. Subsequently, in the following year, CMTT filed a counterclaim, requesting the court to order: Yuanda Company to pay CMTT liquidated damages for project delay; Yuanda Company to compensate CMTT for the costs of rectifying quality issues; Yuanda Company to pay CMTT the

costs for quality issue appraisal. The above case was heard in the year of the counterclaim. Yuanda Company applied for judicial appraisal of the project cost. As of the balance sheet date, the case was under judicial appraisal.

According to the ‘Chinese Certified Public Accountant Auditing Standard No. 1421 - Using the Work of an Expert,’ it clearly states: “The CPA should evaluate whether the expert has the necessary competence, capability, and objectivity to achieve the audit objective. When evaluating the objectivity of an external expert, the CPA should inquire about interests and relationships that may adversely affect the objectivity of the external expert.” In the above issue involving relevant legal matters, the staff of ShineWing consulted CMTT's legal department and obtained a legal opinion letter on the relevant issue. However, subsequently, the audit personnel did not continue to seek advice from external legal experts. Therefore, to a certain extent, it was impossible to judge whether the opinion of the legal department was impartial.

Regarding this litigation, although CMTT refused to pay the project warranty retention and part of the project payment on the grounds of quality defects and failure to perform warranty obligations, and project delays, the outcome of the litigation was still uncertain, the project was old, and relevant debts were still being cleared, posing a possibility of contingent liabilities. It should have been disclosed in the contingencies note and explained off-balance-sheet in the balance sheet to indicate the existence of contingent liabilities. Based on the understanding of the previous year's audit results, CMTT had already disclosed this pending litigation in the contingencies note for 2020. CMTT agreed to continue disclosing it in the contingencies note for 2021, but believing the likelihood of winning the lawsuit was high, refused to recognize a contingent liability on the balance sheet, only agreeing to continue disclosure in the notes. The audit personnel obtained the legal judgment document from CMTT's legal staff on-site and persisted in explaining the contingent liability using professional judgment and theory, but did not discuss or evaluate the legal judgment document with external professionals. This behavior affected the independence and rigor of the audit work.

4.3. Over-reliance Risk in the Assessment of Contract Management Internal Controls

In the normal operation of CMTT, contracts are crucial. Whenever there is business interaction with other entities and revenue exists, it implies the existence of contracts. The new revenue standards place greater emphasis on the identification of contractual obligations, using the transfer of control as the standard for revenue recognition. When assessing the risk of material misstatement at the assertion level, auditors generally assume that the internal controls of the audited entity are operating effectively and should plan and perform tests of controls as part of their practice to obtain appropriate audit evidence about the effectiveness of internal controls. In the audit work, based on the different business natures of CMTT's subsidiaries, there were differences in contract management. Auditors should have requested the contract management measures from all subsidiaries of CMTT to understand the contract signing processes and other relevant regulations of each company. However, during the audit of CMTT, the auditors did not obtain the contract management systems of all subsidiaries and thus could not test the effectiveness of contract management internal controls for all subsidiaries based on their systems. The auditors only requested the contract management measures from the parent company and two other subsidiaries, performed internal control effectiveness tests on their contract management, and for the remaining subsidiaries, only inquired about the contract management process during interviews, directly requesting the company's own internal control test documents for contract management as audit work records. During the audit, it was found that some projects had contracts but lacked settlement slips in the vouchers. The audited entity did not provide all the missing settlement slips, and the auditors did not persistently request them. In the audit work, including testing internal controls in other areas of the company, there was also a situation of directly and extensively using the internal control test results of the audited entity, showing excessive trust in the audited entity, which undoubtedly increased audit risk.

Furthermore, the audit team did not pay attention to the probability of inconsistency between the form of contract signing and actual performance. If CMTT's management intentionally did not sign

contracts based on the objective situation of business development, or management made subjective judgments arbitrarily, making some flexible contract clauses contain management's bias, then the CPA, without contacting the actual business, might have inappropriate judgments and responses. During the testing of contract management, the auditors only focused on quantity and price, and did not pay attention to whether the contracts themselves complied with the relevant provisions of the Contract Law. This oversight was not conducive to discovering whether the contract terms of the audited entity were compliant and could lead to more serious consequences.

4.4. Inadequate Experience of Audit Staff

This audit task involved a heavy workload. The entire audit team consisted of seven auditors, including two formal employees of the firm (one project manager, one intermediate auditor), two seconded staff (both had work experience but had been with the firm for less than six months), and three audit interns. Overall, the team's working ability was not strong. The person assigned to revenue was the intermediate auditor from the firm's staff, and this was their first time being solely responsible for revenue auditing. In the early stage of the pre-audit, which mainly involved understanding the audited entity and collecting materials, the performance was acceptable. However, in the later stage of the pre-audit, problems frequently occurred due to lack of experience and insufficient understanding of the new revenue standards, often requiring on-site consultation with the project manager or other staff for work-related issues. ShineWing did not assign experienced personnel to audit important items. Additionally, before the audit work began, no personnel were arranged to provide business training to the seconded staff and interns, resulting in their inability to grasp the key points of the work initially, lacking understanding of the specific accounts they were responsible for, and not knowing how to proceed. This, to some extent, reduced audit efficiency.

5. Improvement Measures to Address Deficiencies in Revenue Project Auditing

Based on the previous case of ShineWing's revenue audit of CMTT, many problems were identified in the auditors' execution of the audit work. In this regard, the following measures are proposed, which can be paid more attention to in future audit work to reduce audit risk, improve audit efficiency, and ensure audit quality.

5.1. Exercise Greater Caution in Revenue Cut-off Testing

Before the audit work begins, the audit team should, based on the audit objectives, understand the audited entity through various channels, including internal and external aspects, including business segments, operating conditions, and the industry environment, understand the entity's litigation situation, and assess whether there is a probable outflow of economic benefits in the foreseeable period. Conduct a comprehensive risk assessment, identify key audit areas for revenue, and areas where there may be risks of material misstatement, and assign risk levels. Importance should be attached to revenue aspects during the planning stage, and information should be collected scientifically and sufficiently. In the audit of CMTT, due to the unreasonable assessment of the cut-off risk for revenue, omissions occurred in the work. Therefore, for key audit items of the enterprise, their risk level can be appropriately raised to make the responsible auditors more vigilant and cautious. Develop audit plans and risk identification and assessment tailored to the company's specific situation. This can prevent auditors from being unprepared and overwhelmed upon arriving on-site, neglecting key areas.

The project team should formulate audit procedures before entering the site and discuss them according to the accounts to make the audit procedures more comprehensive and rigorous. Sample selection is essential for audit work. When auditing revenue, voucher sampling must consider the overall picture. The failure to discover the aforementioned revenue cut-off issue was partly due to the incomplete sampling by the auditors. Given CMTT's large transaction volume and revenue being a key audit area, full preparation should be made before sampling vouchers. When sampling vouchers for CMTT's revenue, the auditors, based on the entity's voucher chronological records, first focused

on the month, then on the amount size, selecting vouchers with larger amounts from January to December, trying to sample from each month (months without large amounts could be skipped). However, this sampling method was not scientific and inevitably led to omissions. In the cost cut-off case, part of the reason was also due to non-rigorous voucher sampling. Therefore, auditors should be as comprehensive as possible when sampling vouchers. Samples should cover each category, not just items with large amounts. Considering possible cut-off recognition issues, vouchers for revenue accounts at the end of the previous period, the beginning of the current period, and the end of the current period should be sampled separately and carefully inspected, checking contract signing dates, project settlement slip dates, and booking dates, followed by timely communication with the audited entity for reasonable adjustments.

5.2. Make Full Use of the Work of Experts

In the aforementioned pending litigation of CMTT, the auditors did not consult external professionals regarding the relevant legal issues. In audit work, due to the nature of the work, auditors often come into contact with personnel from different industries. When the determination of professional knowledge in other fields impacts the audit work, auditors should seek external assistance and evaluate the objectivity of the external experts. In CMTT's pending litigation, the auditors only relied on the judgment document issued by the group's legal department staff for their work and did not seek help from external experts, inevitably making the judgment lack objectivity.

Regarding this pending litigation, the auditors initially could not provide reasonable suggestions on the matter. After communicating with the signing manager of the firm by phone, they followed the manager's suggestion and proposed to the group to disclose the contingent liability in the off-balance-sheet notes of the balance sheet. Ultimately, they still failed, through effective communication, to get CMTT to disclose the contingent liability in the off-balance-sheet notes of the balance sheet, only agreeing to continue disclosure in the notes.

5.3. Perform Control Tests on Contract Management Internal Controls

As contract management is a top priority in enterprise management, its internal controls should be tested meticulously. The project team should clarify the objectives of the enterprise's internal controls. Obtain the independent contract management measures of each company, read them in detail, and select contract samples for inspection. The sample selection process must still be cautious and comprehensive. Check whether necessary procedures and documents are complete. When doubting a specific transaction contract, use a reverse verification method first to check the authenticity of the transaction. After obtaining supplementary materials, carefully discern their authenticity and check the rationality of the supplementary materials. Perform walk-through tests, track the specific process of transactions, and verify the existence of the processes described by management. Check whether contract management personnel have performed necessary segregation of duties. Inspecting the internal controls of contract management can not only lead to a deeper understanding of the audited entity's business but also improve the quality of the audit work, adding assurance to the success of the audit.

Furthermore, when auditors test contract management, they should not only focus on the contract amount and quantity but also select some contracts for detailed inspection, paying attention to whether their terms comply with the provisions of the Contract Law. This can also lead to higher audit quality and a more rigorous audit process.

5.4. Assign a More Professional Audit Team

Revenue is a key audit area for CMTT, with risks of material misstatement. After the application of the new revenue standards, the revenue recognition method has changed significantly compared to before, involving substantial changes and impact. Therefore, it should be given due attention. When auditing such enterprises, a more professional audit team should be assigned.

Before the project begins, the accounting firm should train less experienced staff, explaining the key points of the audit areas each is responsible for. For revenue auditing, combined with recent audit focus areas, auditors should be required to familiarize themselves with the new revenue standards in advance, making full preparation for the work. Second, throughout the entire work process, the on-site in-charge should control the overall audit work, supervise and monitor the audit team members, and promptly correct any non-compliant practices during the work to ensure audit quality and efficiency. Third, throughout the audit process, the audit team should review the work of each stage, identify and solve problems promptly, enhancing the audited entity's trust in the audit team and their recognition of the audit work. Fourth, auditors should communicate timely among themselves. During the work process, the audit team should center around the on-site in-charge, ensuring good communication throughout the process. Audit evidence obtained by members through different channels should be shared promptly with other team members to avoid information asymmetry. Auditors should trust and cooperate with each other, fully leveraging the team's strength to complete the audit work. Fifth, carefully calculate relevant financial and non-financial indicators, promptly identify abnormal transactions, inquire about the reasons from the enterprise, and focus particularly on items where differences between two periods exceed a reasonable range. Use other methods, if necessary, such as site visits, physical inventory counts, etc. Question vague or unreasonable answers from financial personnel promptly, maintaining the professionalism of the auditors.

6. Conclusion and Implications

6.1. Conclusion

This paper is developed based on the revenue audit of CMTT by ShineWing, fully integrating the specific business circumstances in practice. ShineWing accepted the engagement from CMTT to perform financial statement audits on its headquarters, other subsidiaries, and the consolidated statements. After discussion by the audit team, revenue was identified as one of the key areas of this audit, and this paper also focuses on introducing the revenue audit work for CMTT. To perform the revenue audit of CMTT effectively, risk assessment procedures were performed, listing operating revenue, accounts receivable, and contract assets as items with risk of material misstatement. During the revenue audit process, the internal controls of the sales process were understood, and the rationality of the system was evaluated; audit procedures and control tests were designed and implemented; audit evidence was obtained, and the enterprise's detailed internal situation, including the effectiveness of internal controls and the rationality and compliance of operations, was understood through observation and inspection. Analytical procedures were performed on CMTT. Through the analysis of financial and non-financial indicators, the operating status of the enterprise in 2021 was understood, and reasons for significant differences compared to the previous period were identified. Substantive procedures were performed for the risks of material misstatement. First, the operating environment of the audited entity was understood. Second, the identified risks were combined with specific areas within revenue. Third, for the identified risks, their potential broader relationship with the financial statements as a whole was evaluated. Finally, the likelihood of misstatement occurrence was considered. Specific substantive procedures were set for operating revenue and cost, accounts receivable and long-term receivables, contract assets and contract liabilities.

During the audit of CMTT by the project team, due to the slow progress of the revenue audit, several deficiencies emerged in the work, causing the audit team's work progress to slow down and extending the audit work time. The main problems in the audit team's work were, first, the failure to reasonably assess the risk of misstatement at the assertion level, not maintaining the necessary auditor rigor throughout, and assigning unreasonable risk levels. Second, the failure to study the auditing standards deeply and remember important content of the standards adequately. Third, the failure to provide a reasonable evaluation of the effectiveness of the enterprise's internal controls. When testing internal controls, the auditors did not pay sufficient attention to contract management. Fourth, in this audit task, the auditor responsible for revenue was an intermediate auditor from the accounting firm,

lacking experience and having an insufficient understanding of the new revenue standards, leading to many problems during the work that required on-site consultation with experienced personnel for resolution.

6.2. Implications

Based on the comprehensive case of ShineWing's revenue audit of CMTT, the following suggestions are proposed for future audit work. First, conduct strict and reasonable level assessments of the risk of material misstatement at the assertion level for the audited entity and gain a comprehensive understanding of the audited entity. Second, in audit work, there are many situations where staff need to select samples. When selecting samples, auditors should scientifically and reasonably classify the population, roughly divide it into several categories, and then sample. Third, auditors should continuously study auditing standards, keep abreast of changes in standards, and memorize certain basic and important standards to maintain their professionalism. Fourth, perform strict testing of the audited entity's internal control work, conduct appropriate control tests on its internal controls, and exercise judgment regarding the self-test results provided by the audited entity. Fifth, accounting firms should reasonably staff the audit team. When facing tasks with heavy workloads, appropriately increase the number of audit team members; when assigning work, understand the work experience of the auditors and assign more experienced personnel to be responsible for more critical tasks. The above conclusions and implications are derived from the analysis of the revenue audit of CMTT by ShineWing. There are still many shortcomings in the research, and some views remain at an ideal stage. In the future, we will strengthen the study of professional knowledge and continuously engage in professional practice to gain a deeper understanding of the audit industry from the perspective of practical work.

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