

The “Assurance Gap” in ESG Information Disclosure in the Baijiu Industry: Current Status, Causes, and Countermeasures

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Abstract

With the release of the Guidelines for Sustainability Reports of Listed Companies by the Shanghai, Shenzhen, and Beijing Stock Exchanges, A-share ESG information disclosure has entered a new “partially mandatory” stage. As a traditional industry with high environmental sensitivity, the baijiu industry has significantly increased its ESG report disclosure rate. However, behind the prosperity of disclosure, the coverage rate and quality of third-party assurance have long remained low, forming an “assurance gap.” Based on the publicly available ESG reports of 15 listed baijiu enterprises with operating revenue of more than RMB 1 billion in 2025, this paper systematically reviews the current status of ESG information disclosure and assurance in the baijiu industry, deconstructs the specific manifestations of the assurance gap from four dimensions-calibers, depth, scope, and providers-and further analyzes the underlying causes of the gap from four levels: institutional supply, technical system, corporate governance, and service supply. The study finds that among the 15 sample enterprises, 5 implemented third-party assurance, with a coverage rate of approximately 33.3%, slightly higher than the average level of 29.8% for the mandatory disclosure group in the overall market. However, the assurance standards are mainly AA1000AS v3 Type 2 moderate assurance and ISAE 3000 reasonable assurance; the assurance scope is mostly limited to selected performance indicators or excludes forward-looking information; industry-specific topics are insufficiently covered; and all assurance providers are international TIC institutions or consulting companies, with accounting firms absent. The formation of the assurance gap is the result of multiple factors: insufficient adaptation between general standards and industry characteristics, immaturity of non-financial assurance technology, weak independence of corporate ESG internal control, and lagging supply of professional assurance services. Accordingly, this paper proposes targeted countermeasures from four dimensions-institutional norms, technical support, corporate governance, and service cultivation-in order to provide a reference for bridging the ESG assurance gap in the baijiu industry and improving the quality of sustainability information disclosure in the industry.

Keywords

Baijiu Industry; ESG Information Disclosure; Sustainability Information Assurance; Assurance Gap.

1. Introduction

In April 2024, the Shanghai, Shenzhen, and Beijing Stock Exchanges simultaneously released the Guidelines for Sustainability Reports of Listed Companies (Trial), marking that A-share ESG information disclosure has officially moved from the voluntary stage to a new “partially mandatory” stage. As a traditional industry with high environmental sensitivity, the baijiu industry, driven by the demonstration effect of leading enterprises, has significantly increased

its ESG report disclosure rate. However, ESG information is characterized by non-monetary, forward-looking, and multi-dimensional features, and its measurement and disclosure involve considerable subjective judgment space, making it more susceptible to “greenwashing.” An increase in disclosure rate does not equate to a synchronous improvement in information credibility. Against this background, independent third-party assurance, as a core institutional arrangement for enhancing the credibility of ESG reports and curbing information distortion, has become increasingly important. At the institutional level, the IAASB released ISSA 5000 in November 2024, and the Ministry of Finance issued the Sustainability Information Assurance Standard No. 6101-Basic Standard (Trial) in January 2026, marking that China’s sustainability information assurance has entered a new stage of institutionalized development.

However, the improvement of the institutional framework has not been accompanied by synchronous progress in assurance practice. From the perspective of the baijiu industry, the development of sustainability information assurance significantly lags behind disclosure progress. There is an obvious asymmetry between assurance coverage and assurance quality, industry-specific topics are insufficiently covered, and there is a structural mismatch between assurance supply and industry demand, forming a prominent “assurance gap.” Based on this, this paper takes the 2025 ESG reports of 15 listed baijiu enterprises with operating revenue of more than RMB 1 billion in 2025 as research samples, systematically analyzes the realistic manifestations and formation causes of the ESG assurance gap in the baijiu industry, and proposes targeted countermeasures from four dimensions-institutional norms, technical support, corporate governance, and service cultivation-in order to provide a reference for bridging the ESG assurance gap in the baijiu industry and improving the quality of sustainability information disclosure.

2. Literature Review

As an external governance mechanism for alleviating information asymmetry and enhancing stakeholder trust, the theoretical foundation of sustainability information assurance can be traced back to signaling theory and legitimacy theory. Based on a cross-country sample, Simnett et al. (2009) found that in environments with weak legal institutions, enterprises are more inclined to seek high-quality assurers to assure their sustainability reports, so as to compensate for institutional deficiencies and convey credible signals^[1]. Casey and Grenier (2015) further found that assured ESG reports have higher information content in predicting future financial performance^[2]. The experimental study by Cheng et al. (2015) also confirmed that assurance of sustainability indicators can significantly enhance investors’ investment willingness^[3]. However, Hoang and Trotman (2021) did not find, in a natural state, significant differences between limited assurance and reasonable assurance in non-professional investors’ valuation judgments^[4]. This contrasts with the finding of Zhang Jixun et al. (2026) in the Chinese context that non-professional investors can distinguish assurance levels and that investment attractiveness under reasonable assurance is significantly higher than under limited assurance, indicating that the information content of assurance levels may be moderated by the institutional environment and investor cognition. At the institutional level, ISSA 5000, released by the IAASB in November 2024, established a globally unified sustainability information assurance framework for the first time, while China’s Sustainability Information Assurance Standard No. 6101-Basic Standard (Trial), issued in January 2026, filled the gap in domestic assurance standards^[5]. Liu Minghui and Wang Pengcheng (2025) pointed out that sustainability information assurance standards should be independent of other assurance standards, regulate the behavior of all assurance providers, allow flexible choices between reasonable assurance and limited assurance, and suggest gradually promoting full implementation in combination with mandatory assurance. The above studies provide

theoretical support for understanding the value basis and institutional evolution of sustainability information assurance^[6].

However, in sharp contrast to the rapid advancement of institutional supply, assurance coverage and assurance quality at the practical level still have significant shortcomings. Based on a study of 272 A-share ESG assurance enterprises^[7], Chang Min et al. (2026) found that among 446 mandatory disclosure enterprises, only 29.8% implemented assurance, and the assurance rate of the non-mandatory disclosure group was only about 5.71%^[8]. Huang Shizhong's (2026) analysis of 430 mandatory disclosure entities likewise found that 90.2% of assurance opinions were limited assurance, with reasonable assurance accounting for only 6.8%^[9]. Yi Pingliang (2026), taking listed pharmaceutical companies as an example, revealed deep-seated problems such as weak correlation between assurance focus and disclosure focus, disconnection between assurance standards and disclosure standards, and self-exemption of assurance providers^[10]. The comparative analysis by Cheng Bo et al. (2026) also showed that accounting firms tend to limit assurance to the verification of disclosed indicators without extending it to the process by which management identifies material topics^[11]. In terms of causes, Chen Songjie et al. (2024), based on interviews with 11 accounting firms, found that the lack of government regulation and recognized high-quality sustainability reporting standards and assurance standards were the most important external influencing factors, while insufficient client capacity building and assurance cost constraints also constituted significant constraints^[12]. Li Minghui (2026) pointed out that under China's "government-regulation-oriented" environment, enterprises are less likely to voluntarily implement assurance when explicit costs are high and potential benefits are unclear, and some enterprises' assurance behavior may be more of a legitimacy management tool than a substantive governance instrument^[13]. The above studies provide an important theoretical and empirical basis for understanding the ESG assurance gap, but existing literature mostly focuses on the overall market level or individual industries such as pharmaceuticals, and few studies systematically analyze the baijiu industry, a typical industry with significant environmental externalities and social externalities. Based on the ESG reports of major baijiu enterprises, this paper systematically analyzes the current status, causes, and countermeasures of the sustainability information assurance gap, which not only supplements the existing industry-level research gap but also provides a theoretical response to ESG governance practice in the baijiu industry.

3. Current Status of ESG Information Disclosure and Assurance in the Baijiu Industry

3.1. Sample Selection and Data Sources.

This paper takes listed baijiu enterprises with operating revenue of more than RMB 1 billion in 2025 as research samples, totaling 15. The sample selection is based on the following considerations: First, the ESG practices of leading enterprises have a demonstration and leading effect on the industry, and their assurance practices can represent the highest level of the industry. Second, the above enterprises cover major aroma types such as sauce-aroma, strong-aroma, light-aroma, and mixed-aroma, as well as different ownership forms such as state-owned enterprises and private enterprises, and thus have good industry representativeness.

The data sources mainly include: the 2025 Environmental, Social and Governance (ESG) reports or social responsibility reports of each enterprise, annual financial reports, publicly available information on corporate websites, and third-party ESG rating databases such as Wind and Huazheng.

3.2. Overall Characteristics of ESG Information Disclosure.

Table 1. Overview of ESG Information Disclosure and Assurance of Sample Baijiu Enterprises in 2025

Enterprise	Report Title	Main Preparation Basis	Material Topic Identification	Third-Party Assurance
Kweichow Moutai	Environmental, Social and Governance (ESG) Report	SSE Guidelines No. 14, GRI, etc.	34 topics identified, 6 with double materiality	SGS, AA1000AS v3 Type 2, moderate
Wuliangye	Environmental, Social and Governance (ESG) Report	SZSE Guidelines No. 17, GRI, SDGs, etc.	24 topics identified, 13 with double materiality	Not disclosed
Shanxi Xinghuacun Fen Wine	Environmental, Social and Governance (ESG) Report	SSE Guidelines No. 14, GRI, SDGs	Double materiality matrix (total number not specified)	Not disclosed
Luzhou Laojiao	Environmental, Social and Governance (ESG) Report	SZSE Guidelines No. 17, GRI, IFRS S1/S2	16 topics identified, 5 with double materiality	Not disclosed
Anhui Gujing Distillery	Environmental, Social and Governance (ESG) Report	SZSE Guidelines No. 17, GRI, China Alcoholic Drinks Association guidelines	34 topics identified, 6 with double materiality	Bureau Veritas, ISAE 3000 + GRI, reasonable assurance
Shede Spirits	Environmental, Social and Governance (ESG) Report	SSE Guidelines No. 14, GRI	23 topics identified	Not disclosed
Sichuan Swellfun	Environmental, Social and Governance (ESG) Report	SSE Guidelines No. 14, GRI	29 topics identified, 10 with double materiality	TÜV Rheinland, AA1000AS v3 Type 2, moderate
Jiangsu King's Luck Brewery	Sustainable Development (ESG) Report	SSE Guidelines No. 14, GRI	Double materiality assessment (total number not specified)	Bova Technology, AA1000AS v3 Type 2, moderate
Anhui Kouzi Distillery	Environmental, Social and Governance Report	SSE Guidelines No. 14, GRI, China Alcoholic Drinks Association guidelines	Double materiality assessment (171 questionnaires)	Not disclosed
Hebei Hengshui Laobaigan Liquor	Social Responsibility Report	ESG preparation standards not specified	Double materiality analysis not disclosed	Not disclosed
Jinhui Liquor	Environmental, Social and Governance (ESG) Report	SSE Guidelines No. 14, GRI	Double materiality matrix (total number not specified)	Not disclosed (report states no third-party verification)
Anhui Yingjia Distillery	Social Responsibility Report	SSE Guidelines No. 14, industry association guidelines	Double materiality analysis not disclosed	Not disclosed
Beijing Shunxin Agriculture	Environmental, Social and Governance (ESG) Report	SZSE Guidelines No. 17, GRI	24 topics identified	Not disclosed
ZJLD Group	Environmental, Social and Governance (ESG) Report	HKEX ESG Code, GRI, IFRS S1/S2	27 topics identified, 11 highly important	Bureau Veritas, ISAE 3000 + GRI + GHG Protocol, reasonable assurance
Jiangsu Yanghe Brewery	Environmental, Social and Governance Report	SZSE Guidelines No. 17, GRI	Double materiality assessment (145 questionnaires)	Not disclosed

Note: Data are derived from the 2025 ESG reports or social responsibility reports of each enterprise; report titles are uniformly simplified; "Not disclosed" means that no independent third-party assurance statement is found in the main text or appendix of the report. "N topics identified" refers to the number of material topics identified by the enterprise in the double materiality assessment; "AA1000AS v3 Type 2 moderate" refers to assurance conducted under AA1000AS v3 Type 2, with a moderate level of assurance.

Overall, all 15 sample enterprises completed ESG report or social responsibility report disclosure in 2025, with a disclosure coverage rate of 100%. The reports are mainly named “Environmental, Social and Governance (ESG) Report” or “Sustainable Development (ESG) Report,” while a few enterprises still use the form of “Social Responsibility Report.” The preparation basis is mainly the Sustainability Report Guidelines of the Shanghai and Shenzhen Stock Exchanges and GRI Standards, and some enterprises also refer to SDGs, UNGC, ISO 26000, and the ESG Disclosure Guidelines for Alcoholic Beverage Enterprises of the China Alcoholic Drinks Association. In terms of material topic identification, most enterprises have introduced double materiality analysis, with the number of topics mostly in the range of 16–34, while some enterprises do not specify the total number. In terms of assurance, 5 enterprises disclosed third-party assurance, with a coverage rate of approximately 33.3%. The above characteristics are intuitively presented in Table 1.

As shown in Table 1, the disclosure system of the sample enterprises has taken initial shape, but assurance development clearly lags behind disclosure: the coverage rate is approximately 33.3%, and assurance standards are not unified, assurance levels vary, assurance scope is narrow, assurance providers are homogeneous, and accounting firms are absent. This provides a factual basis for the following analysis of the “assurance gap.”

3.3. Current Status of ESG Assurance Practice.

Table 2. Third-Party Assurance of Sample Baijiu Enterprises in 2025

Enterprise	Assurance Provider	Assurance Standard	Assurance Level	Assurance Scope Characteristics
Kweichow Moutai	SGS-CSTC Standards Technical Services Co., Ltd.	AA1000AS v3 Type 2	Moderate assurance	Focused sampling of 13 specific performance indicators; excludes financial data, position statements, and forward-looking information
Sichuan Swellfun	TÜV Rheinland	AA1000AS v3 Type 2	Moderate assurance	Selected specific performance indicators; excludes financial data, position statements, and forward-looking information
Jiangsu King's Luck Brewery	Bova Technology (Beijing) Co., Ltd.	AA1000AS v3 Type 2	Moderate assurance	Selected key performance data; excludes financial data, position statements, and forward-looking information
Anhui Gujing Distillery	Bureau Veritas Certification (Beijing) Co., Ltd.	ISAE 3000, GRI	Reasonable assurance	Covers data and information for the reporting year; excludes financial data, position statements, and forward-looking information
ZJLD Group	Bureau Veritas Certification (Beijing) Co., Ltd.	ISAE 3000, GRI, GHG Protocol	Reasonable assurance	Covers data and information for the reporting year; excludes financial data, position statements, and forward-looking information

Note: Data are derived from the independent assurance reports or statements in the appendices of the 2025 ESG reports of each enterprise; “moderate assurance” refers to the assurance level under AA1000AS v3 Type 2, and “reasonable assurance” refers to the assurance level under the ISAE 3000 framework; non-assured enterprises include Wuliangye, Shanxi Xinghuacun Fen Wine, Luzhou Laojiao, Shede Spirits, Anhui Kouzi Distillery, Hebei Hengshui Laobaigan Liquor, Jinhui Liquor, Anhui Yingjia Distillery, Beijing Shunxin Agriculture, and Jiangsu Yanghe Brewery, totaling 10, among which Jinhui Liquor explicitly states that the report has not been verified by a third party.

From the perspective of assurance coverage, among the 15 sample enterprises, 5 clearly disclosed third-party independent assurance reports or statements, with an assurance coverage rate of approximately 33.3%; the remaining 10 did not disclose any third-party assurance arrangement, among which Jinhui Liquor explicitly stated in its report that “this report has not been verified by a third party.” From the perspective of assurance standards and assurance levels, among the 5 assured enterprises, 3 adopted AA1000AS v3 Type 2 moderate assurance, and 2 adopted ISAE 3000 reasonable assurance. From the perspective of assurance providers, the assurance providers of the 5 enterprises are all international TIC institutions or professional consulting companies such as SGS, TÜV Rheinland, Bureau Veritas, and Bova Technology, and none was an accounting firm. From the perspective of assurance scope, the assurance content is generally narrow, mainly limited to some key performance data or annual information after excluding forward-looking information and financial data. The above characteristics are presented in Table 2.

As shown in Table 2, ESG assurance practice in the baijiu industry presents the characteristics of “low coverage and obvious structural gaps.” In terms of coverage, the assurance rate of 33.3% is slightly higher than the average level of 29.8% for the mandatory disclosure group in the overall market. However, in terms of standards and assurance levels, assurance standards are not unified, with AA1000AS v3 Type 2 moderate assurance and ISAE 3000 reasonable assurance coexisting, and 3 enterprises adopt moderate assurance, indicating an overall low assurance level. In terms of assurance scope, all 5 enterprises exclude financial data, position statements, and forward-looking information from the assurance scope, and industry-specific topics are insufficiently covered. In terms of assurance providers, all are TIC institutions or consulting companies, with accounting firms absent, and assurance capabilities in financial and governance dimensions are insufficient. This indicates that the “assurance gap” in the baijiu industry is mainly not a coverage gap, but a structural gap in standard adaptation, assurance level, assurance scope, and provider professionalism.

3.4. Specific Manifestations of the Assurance Gap

The “gap” in ESG assurance in the baijiu industry is not simply insufficient coverage, but a structural deficiency of “low coverage and insufficient effectiveness.” Overall, 10 of the 15 sample enterprises did not disclose any third-party assurance arrangement. Assurance absence exists simultaneously among leading and mid-tier enterprises in the industry, and some enterprises explicitly state in their reports that they have “not been verified by a third party.” From the perspective of assurance standards, assured enterprises adopt AA1000AS v3 Type 2 moderate assurance and ISAE 3000 reasonable assurance respectively, with inconsistent standards and a lack of alignment with disclosure standards such as the Guidelines of the Shanghai and Shenzhen Stock Exchanges and GRI, resulting in a weak correlation between assurance focus and disclosure focus. From the perspective of assurance scope, among the assured enterprises, 3 limit the assurance scope to selected key performance indicators or specific performance indicators, and 2 state that they cover data and information for the reporting year but exclude financial data, position statements, and forward-looking information; industry-specific topics such as the sustainability of raw grain cultivation, the quality and safety of brewing water, the authenticity of aged liquor vintage, and the recyclability of packaging materials are generally not explicitly included in the assurance focus, and the visibility of assurance for industry material topics is insufficient. From the perspective of assurance providers, the assurance providers of assured enterprises are all international TIC institutions or consulting companies, and accounting firms are absent overall, showing a professional capability mismatch of “technical institutions not understanding finance, and financial institutions not understanding the industry.” From the perspective of assurance transparency, non-assured enterprises did not disclose the reasons for not obtaining assurance,

and assured enterprises did not adequately disclose the assurance level and assurance scope, making it difficult for stakeholders to judge the reliability of assurance conclusions. Therefore, the assurance gap in the baijiu industry is concentrated in five dimensions: coverage deficiency, standard disconnect, narrow scope, single provider type, and insufficient transparency. Its essence is a structural mismatch between general assurance supply and ESG governance demand in the baijiu industry.

4. Causes of the Assurance Gap

4.1. Structural Mismatch between General Assurance Standards and the Characteristics of the Baijiu Industry.

The Ministry of Finance's Sustainability Information Assurance Standard No. 6101-Basic Standard (Trial), as a general standard, only provides principle-based provisions on the basic concepts, assurance levels, and procedures of assurance engagements, and lacks detailed industry-specific guidance. However, ESG topics in the baijiu industry have significant particularities: environmental topics have the dual attributes of agricultural non-point source pollution and industrial wastewater and waste residue; social topics have the dual attributes of food safety and intangible cultural heritage inheritance; and governance topics present mixed characteristics of coexisting orientations such as Party building leadership in state-owned enterprises and market competition in private enterprises. The general standard does not make special arrangements for the above characteristics of the baijiu industry, resulting in a lack of clear guidance for assurance providers when handling ESG reports of baijiu enterprises, and a systemic disconnect between assurance focus and disclosure focus.

4.2. Immaturity of Non-Financial Assurance Technology Constrains Assurance Depth and Scope.

Compared with financial information, ESG information has characteristics such as non-monetary nature, forward-looking nature, and multi-dimensionality, and its measurement and verification are more difficult. The existing assurance technical system is mainly designed for financial information. Specifically for the baijiu industry, carbon accounting boundaries and emission factors are not yet unified, process emissions such as CO₂ fugitive emissions from fermentation are difficult to verify, and Scope 3 data are usually outside the assurance scope; statistical calibers for water data differ significantly, and the water withdrawal and water consumption data of some enterprises only cover factories equipped with measuring instruments; the disclosure rate of supply chain ESG data is low, mainly based on self-assessment, and lacks an independent verification mechanism. The insufficiency of technical means imposes substantive constraints on both the depth and scope of assurance providers.

4.3. Weak Independence of Corporate ESG Internal Control Leads to Insufficient Assurance Evidence.

Effective ESG assurance needs to be based on sound ESG internal control, including an ESG data collection system, an ESG risk management mechanism, and an ESG internal audit system. However, from public reports, sample enterprises rarely disclose internal control arrangements such as ESG data collection systems and ESG internal audit systems, and ESG data calibers and accounting methods have limited comparability across reports; ESG risks have not been deeply integrated into the enterprise-wide risk management system, and the identification, assessment, response, and monitoring of ESG risks lack systematic institutional arrangements; most enterprises' internal audit still focuses mainly on financial audit and compliance audit, and has not carried out independent evaluation of the authenticity, accuracy, and completeness of ESG data. The weak internal control foundation means that ESG assurance

lacks the support of the first line of defense, and assurance providers have to bear more data verification work.

4.4. Lagging Supply of Professional Assurance Services Leads to Homogenization of Assurance Providers.

At present, institutions capable of providing ESG assurance services mainly include accounting firms and TIC institutions, but both types of institutions have obvious shortcomings in service supply for the baijiu industry. Although accounting firms have accumulated rich experience in the field of financial assurance, they started late in the field of ESG assurance, and their ESG assurance teams have insufficient accumulation of industry expertise. They tend to limit assurance to the verification of disclosed indicators without extending it to the process by which management identifies material topics. Although TIC institutions have technical advantages in fields such as environmental testing, carbon accounting, and product quality certification, they have capability shortcomings in the linkage between financial and non-financial information, internal control evaluation, and fraud risk identification. In addition, institutions capable of providing ESG assurance services for the baijiu industry are mainly concentrated in first-tier cities such as Beijing, Shanghai, Guangzhou, and Shenzhen, and assurance service resources are unevenly distributed geographically. The imbalance in supply structure makes it difficult for baijiu enterprises to obtain assurance services that combine industry expertise and financial capability.

5. Countermeasures and Suggestions

First, formulate ESG assurance guidelines for the baijiu industry. On the basis of the Sustainability Information Assurance Standard No. 6101-Basic Standard (Trial), the Chinese Institute of Certified Public Accountants or the China Alcoholic Drinks Association should take the lead in clarifying the assurance scope for ESG material topics in the baijiu industry, carbon accounting assurance methods, water data assurance procedures, supply chain ESG data assurance standards, and verifiability requirements for subjective indicators such as aged liquor vintage. Simultaneously, establish the correspondence between disclosure standards and assurance standards, and clarify the assurance objectives, procedures, evidence requirements, and assurance levels for each material topic. State-owned baijiu enterprises should be encouraged to take the lead in piloting assurance.

Second, develop assurance technical specifications adapted to the characteristics of the baijiu industry. Unify carbon accounting boundaries, methods, and emission factors for the baijiu industry, and develop carbon assurance technical guidelines; unify statistical calibers and measurement methods for indicators such as water withdrawal, water consumption, recycled water use, and wastewater discharge, and promote the application of online monitoring, IoT, and blockchain technologies; build a supply chain ESG data sharing and assurance platform for the baijiu industry, enabling online supplier data reporting and review, cross-validation and anomaly warning, and online execution and recording of assurance procedures.

Third, strengthen the independence of corporate ESG internal control and internal audit. Incorporate ESG data collection into enterprise informatization planning, install online monitoring equipment for key environmental data such as carbon emissions, water consumption, and energy consumption, and establish a supplier reporting and review mechanism for supply chain ESG data; incorporate ESG risks into the enterprise-wide risk management system and establish a closed-loop mechanism of identification, assessment, response, and monitoring; set up ESG audit positions or teams in internal audit departments, focusing on the authenticity, accuracy, and completeness of ESG data and the effectiveness of ESG risk management and compliance management, with internal audit results serving as important input for external assurance.

Fourth, cultivate professional assurance institutions with industry expertise. Incorporate ESG assurance into the continuing education and training system for certified public accountants, and encourage accounting firms to cooperate with baijiu enterprises, research institutions, and TIC institutions to accumulate industry experience; encourage TIC institutions to introduce professionals with financial, auditing, and legal backgrounds, and enhance their capabilities in financial impact analysis of ESG data, internal control evaluation, and fraud risk identification; encourage national assurance institutions to set up branches or service outlets in central and western regions, support universities, research institutions, and industry associations in central and western regions to carry out ESG assurance training and consulting activities, and cultivate localized service capacity.

6. Conclusion

This paper takes the ESG reports of 15 listed baijiu enterprises with operating revenue of more than RMB 1 billion in 2025 as research samples, and systematically examines the “assurance gap” issue in ESG information disclosure in the baijiu industry. The study finds that the assurance coverage rate of the sample enterprises is approximately 33.3%, slightly higher than the average level of 29.8% for the mandatory disclosure group in the overall market, but assurance quality has obvious structural shortcomings: assurance standards are mainly AA1000AS v3 Type 2 moderate assurance and ISAE 3000 reasonable assurance; the assurance scope is mostly limited to selected performance indicators or excludes forward-looking information; industry-specific topics are insufficiently covered; and all assurance providers are international TIC institutions or consulting companies, with accounting firms absent. This gap is concentrated in four dimensions: disconnected calibers, insufficient depth, narrow scope, and single provider type. Its essence is a structural mismatch between general assurance supply and ESG governance demand in the baijiu industry, and its formation is the result of the combined action of factors at four levels: institutional supply, technical system, corporate governance, and service supply.

The research contributions of this paper are as follows: First, it focuses on the baijiu industry, a typical industrial scenario with significant environmental and social externalities, reveals the special difficulties faced by ESG assurance in traditional manufacturing, and supplements the gap that existing literature mostly focuses on the overall market or individual industries such as pharmaceuticals. Second, combined with the latest institutional background of ISSA 5000 and China’s Sustainability Information Assurance Standard No. 6101-Basic Standard (Trial), it analyzes the adaptation tension between general assurance standards and baijiu industry practice, providing a theoretical reference for standard-setting bodies to improve industry guidance. Third, it proposes a systematic countermeasure framework from four dimensions-institutional norms, technical support, corporate governance, and service cultivation-providing a practical path for improving the ESG assurance system in the baijiu industry.

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