



A Study on the Construction of Environmental Image of Four Chinese Banks: Based on Metadiscourse Analysis

Xiaoqin Liu

School of Foreign Languages and Cultures,
Guangdong University of Finance, Guangzhou, China

Yinyin Zhang

(Corresponding Author)

School of Foreign Languages and Cultures,
Guangdong University of Finance, Guangzhou, China

ABSTRACT

With the escalating global concern for environmental issues and China's commitment to achieving carbon peaking and neutrality goals, this study aims to investigate how four leading Chinese banks have constructed environmental images through their CSR reports from 2016 to 2021. Utilizing Hyland's (2005) Metadiscourse model and AntConc 3.5.9 for corpus analysis, we quantitatively and qualitatively examine the strategic use of Metadiscourse in these reports. Our findings reveal a dominance of interactive Metadiscourse, particularly transitions and frame markers, which facilitate coherent and structured environmental disclosures. Interactional Metadiscourse, featuring self-mentions and engagement markers etc., underscores the banks' authority and reader engagement. The banks' CSR reports demonstrate commitments to carbon reduction, green finance and credit, ecological agriculture support, and environmental risk management, and then portray proactive environmental images. This research provides insights into how Metadiscourse constructs sustainability discourse in the financial sector, informing ESG reporting and environmental communication strategies.

Keywords: Metadiscourse, CSR Reports, Chinese Banks, Environmental Information Disclosure, Construction of Environmental Image, Corpus.

INTRODUCTION

Environmental issues have consistently been a significant global concern. The recurrent emergence of various environmental challenges, which threaten human life and property, has led to a growing recognition among individuals worldwide that these complex problems necessitate collective human action for resolution. In the 1970s, the United Nations Environment Programme (UNEP) was established by the United Nations, playing a pivotal role in the protection of the global environment over the years. The 2030 Agenda for Sustainable Development introduced 17 sustainable development goals, underscoring the principle that no country or individual should be left behind in this endeavor. This agenda was unanimously adopted by 193 member states of the United Nations during a historic summit in September 2015. In 2016, over 170 countries signed the Paris Agreement, which aims to collaboratively enhance the global response to the threat of climate change and to limit the increase in global average temperatures. Countries are working together to achieve peak greenhouse gas

emissions as soon as possible and to attain net-zero greenhouse gas emissions in the latter half of this century, thereby mitigating the environmental risks posed by climate change and addressing the existential crisis it presents to humanity.

As the world's largest developing country, China has actively engaged with environmental issues and has implemented concrete measures to address them. In September 2020, China articulated its objectives of achieving carbon peaking by 2030 and carbon neutrality by 2060. However, addressing environmental challenges necessitates the involvement of multiple stakeholders, particularly leaders in various sectors. Specifically, China's financial sector, as a crucial industry driving the country's macroeconomic development, has played an essential role in the realization of various national initiatives, including green development, the real economy, balanced urban and rural development, and common prosperity. The progressive enhancement of the financial system is indicative of the maturation of a country's financial industry (Ma, 2012), and environmental protection is a critical component of this maturation process, which will also influence the future development of the financial sector (Moskalenko et. al., 2020). Therefore, it is essential for Chinese financial enterprises to recognize and fulfill their social responsibilities throughout their developmental processes, particularly with regard to environmental protection responsibilities.

In recent years, numerous financial institutions have proactively sought to communicate their environmental concerns and practices to the public through the issuance of Corporate Social Responsibility (CSR) reports. The concept of CSR has undergone significant evolution from its initial characterization as "a period of time when society has expectations of an organization that includes economic, ethical, and legal aspects" (Carroll, 1979). Currently, the definition endorsed by the World Business Council for Sustainable Development (WBCSD) is widely recognized: "CSR is an ongoing commitment to contribute to economic development by operating in an ethical manner while improving the well-being of employees and their families, as well as the quality of life in the communities in which they operate and in society at large" (Sin, 2021). According to Chen, Zhang, and Chen (2022), the disclosure of environmental information by financial institutions not only enhances their risk management capabilities and facilitates the allocation of capital and resources towards green and low-carbon initiatives, but also bolsters their institutional reputation and market influence. Consequently, in light of the objectives of carbon peaking and carbon neutrality, the disclosure of environmental information has become increasingly critical. A number of commercial banks, particularly the four major banks in China, have been systematically publishing CSR reports to convey their environmental information.

Furthermore, the Net-Zero Banking Alliance (NZBA), established in April 2021, has expanded its membership to 82 banks across 36 countries, representing 39% of global banking assets. These institutions are committed to achieving carbon neutrality in their operations and investment portfolios by 2050, while also pledging to disclose the progress of their transformation strategies in a timely manner. Thus, the initiative by Chinese commercial banks to disclose environmental information not only contributes to enhancing the environmental quality of Chinese society but also facilitates alignment with global standards, representing a significant step towards integration with the international financial sector.

Nevertheless, the current landscape of environmental information disclosure faces several challenges, including the lack of standardized disclosure criteria, untimely reporting, insufficient mandatory requirements for enterprises, and subpar quality of disclosures. This research employs Hyland's Metadiscourse model (2008) as the theoretical framework and utilizes AntConc as the corpus analysis tool to investigate the environmental information disclosure practices, and further examines the construction of environmental images within the CSR reports of China's four major financial institutions—Bank of China, Industrial and Commercial Bank of China, Agricultural Bank of China, and China Construction Bank—covering the period from 2016 to 2021. The research is also ambitious to seek to clarify the current state of environmental disclosure and how these institutions present environmental issues. Within the Chinese financial sector, this study aims to provide valuable insights for enhancing environmental, social, and governance (ESG) reporting practices.

LITERATURE REVIEW

The Review on Environmental Information Disclosure

The literature on environmental information disclosure (EID) has evolved significantly over the past decades, both globally and within the Chinese context. This review synthesizes the key findings and trends in EID research, focusing on both international and domestic perspectives, while aligning with the objective of our study on the construction of environmental images of four Chinese banks based on Metadiscourse analysis.

Foreign academics pioneered EID research in the 1970s, with seminal works such as Bcams' (1971) study on the social cost transformation of pollution control and Marlin's (1973) examination of pollution accounting problems, laying the foundation for environmental accounting. These early efforts sparked widespread interest in EID from various angles. Joseph and Andrew (1981) highlighted the importance of EID in green finance, aiming to direct capital flows towards genuinely green industries, addressing the asymmetry of information that banks often encounter in credit decisions, leading to credit mismatches. This theme of alleviating information asymmetry and guiding resource allocation persists in subsequent research. Subsequent studies delved into the relationship between corporate characteristics and EID practices. Bramme, Pavelin (2006), and Karim et al. (2006) consistently found that a higher level of equity centralization negatively correlates with EID levels, suggesting that ownership structure plays a crucial role in disclosure behavior. Similarly, Hossain et al. (2006) in their analysis of developing countries, notably Bangladesh, revealed that few firms voluntarily disclosed environmental information, with poor disclosure quality, influenced by factors such as industry, profitability, and indebtedness. Yip Tsui Ying (2006) compared EID practices across Hong Kong, the UK, and Canada, emphasizing the need for regulatory intervention in countries with lagging disclosure standards, demonstrating the influence of regulatory frameworks on EID practices.

Within the Chinese context, EID research has gained momentum in recent years, influenced by both domestic policies and global sustainability goals. With the financial industry being a vital pillar of China's macroeconomic development, EID in financial enterprises has emerged as a key research area. Early works by Wen, Yu and Deng (2007) and Ma (2012) laid a foundation for understanding the social responsibility of Chinese banks, emphasizing their roles in promoting environmental protection and sustainable development. Yang and Wan (2012)

further explored the relationship between controlling shareholder attributes and EID levels in domestic banks, providing insights into the corporate governance aspect of EID.

Recent studies have focused on the practices, challenges, and implications of EID in Chinese financial institutions. Li and Hu (2021) advocated for banks to engage in responsible investment and actively disclose ESG information, especially environmental information, to enhance transparency. Li (2022) emphasized the need for an institutional framework to guide EID in financial institutions, suggesting improvements in legal design, rights and obligations, and disclosure standards. Gao, Xiang, and Zhao (2022), Huang and Zhang (2022), and Xu (2022) highlighted the positive impact of EID on improving environmental and social management systems, optimizing capital allocation, and facilitating green transformation in financing structures. However, they also noted challenges such as insufficient motivation, limited access to technology and data, and the need for clearer environmental governance objectives. Wang and Ren (2022) emphasized the importance of EID in guiding commercial banks towards green development, while Cao (2022) underscored the significance of global sustainability reporting standards in promoting high-quality green finance development.

In summary, research on EID has progressed from theoretical constructs to practical applications, highlighting the significance of corporate attributes, regulatory frameworks, and sustainable development objectives. This evolution facilitates a comprehensive understanding of EID within financial institutions. Nevertheless, there is a paucity of studies that have employed Metadiscourse analysis to critically examine EID documents produced by Chinese banks. This deficiency indicates a pressing need for a more refined comprehension of how banks articulate their environmental identities through linguistic choices, which is the central focus of our investigation. Consequently, our study seeks to enhance the existing literature by providing a metadiscourse-based analysis of EID practices across four Chinese banks, thereby addressing a significant gap in the field.

The Review on the Construction of Environmental Image

In the academic discourse surrounding the construction of environmental image, a multitude of studies have been conducted, each contributing unique perspectives to the field. This review synthesizes the existing literature, categorizing the research based on their thematic focus and methodological approaches, to provide a comprehensive overview.

The construct of environmental image is often anchored in the broader concept of corporate image. Zou (2002) encapsulates this by defining corporate image as the aggregate perception and evaluation held by the public and employees, which is a reflection of the company's performance and characteristics. This definition sets the stage for understanding how corporate actions and communications shape public perception. Li Wang (2002) draws a connection between corporate culture and image construction, suggesting that the latter is an integral component of the former. This perspective emphasizes the role of intangible cultural elements in shaping the tangible manifestations of a company's environmental image. Chen (2008) introduces the concept of green core competency, positing that investment in such capabilities can enhance a company's environmental innovation and, by extension, its environmental image. This line of thought aligns with strategic management theories that advocate for competitive differentiation through sustainable practices.

Gurau (2013) examines the role of communication strategies in developing a positive environmental corporate reputation and image. The study underscores the significance of aligning strategic goals with communication tactics and operational actions, highlighting the importance of a cohesive approach to environmental image construction. Chan (2013) provides an industry-specific analysis, revealing how deluxe hotels with ISO14001 EMS certification implement environmental measures that contribute to a favorable corporate image. This research illustrates the practical applications of sustainability initiatives in enhancing image within the hospitality sector.

Shao (2021) offers a comparative perspective by analyzing the CSR reports of Chinese and American energy corporations. Using a multimodal perspective, this study explores the construction of environmental image through text and imagery, providing insights into cross-cultural differences in environmental communication.

Despite the extensive research on corporate and environmental image construction, there is a notable gap in studies that utilize Metadiscourse analysis to investigate environmental information disclosure within CSR reports for the purpose of image construction. This review also identifies a research opportunity in using tools like AntConc to analyze the discourse patterns in CSR reports, which can reveal the strategies used by banks to communicate their environmental commitments and achievements. This paper specifically aims to fill the gap by employing Metadiscourse analysis to scrutinize the environmental information disclosed by four major Chinese banks in their CSR reports from 2016 to 2021. By examining the textual construction of environmental image in CSR reports, the study seeks to uncover the discursive mechanisms through which these banks present their environmental stewardship to stakeholders. The findings are expected to offer a reference for Chinese financial enterprises in building a robust environmental image through effective communication.

RESEARCH DESIGN

Theoretical Framework

This study uses Hyland's (2008) Metadiscourse model as the theoretical framework to analyze environmental information disclosure and construction of environmental image in CSR reports from four major Chinese banks. Hyland's Metadiscourse model offers a comprehensive categorization of interactive and interactional resources that writers use to organize text and engage readers, enhancing the text's rhetorical functions.

The interactive Metadiscourse concerns the writer's organization of the text and the guidance provided for readers to interpret the text effectively. It comprises elements such as transitions, frame markers, endophoric markers, evidentials, and code glosses. Transitions signal relations between ideas, aiding readers in following the logical flow of the argument. Frame markers help readers navigate through the text by signaling text boundaries or structuring devices. Endophorics refer to other parts of the text, facilitating textual cohesion. Evidentials indicate the source of information, enhancing the credibility of the claims. Lastly, code glosses provide additional explanations to make complex ideas more comprehensible (Hyland, 2008).

The interactional Metadiscourse, on the other hand, concerns the writer's interaction with the reader, aiming to build a relationship, engage the reader, and express attitudes etc. It comprises hedges, boosters, attitude markers, self-mentions, and engagement markers. Hedges express

uncertainty or limit commitment, allowing for alternative interpretations. Boosters, conversely, emphasize certainty and strengthen claims. Attitude markers express the writer's affective stance towards the content. Self-mentions explicitly refer to the writer, promoting a personal presence in the text. Lastly, engagement markers address readers directly, encouraging their participation in the discourse (Hyland,2008).

Table1: Hyland's Metadiscourse Model (Hyland, 2008, p.49)

	Category	Function	Examples
Interactive Metadiscourse	Transitions	Express relations between main clauses	In addition; but; thus; and
	Frame markers	Refer to discourse acts, sequences or stages	Finally; to conclude; my purpose is
	Endophoric markers	Refer to information in other parts of the text	Noted above; see Fig; in section 2
	Evidentials	Refer to information from other texts	According to X; Z states;
	Code glosses	Elaborate propositional meanings	Namely; e.g.; such as; in other words
Interactional Metadiscourse	Hedges	Withhold commitment and open dialogue	Might; perhaps; possible; about
	Boosters	Emphasize certainty or close dialogue	In fact; definitely; it is clear that
	Attitude markers	Express writer's attitude to proposition	Unfortunately; I agree; surprisingly
	Self-mentions	Explicit reference to author(s)	I; we; my; me; our
	Engagement markers	Explicitly build relationship with reader	Consider; note; you can see that

By adopting Hyland's Metadiscourse model, this study aims to uncover the linguistic strategies employed by the four Chinese banks in their CSR reports to disclose environmental information and construct their environmental image. Specifically, it seeks to analyze how these banks utilize both interactive and interpersonal Metadiscourse resources to organize their disclosures, engage with stakeholders, and ultimately, shape their environmental image. This framework enables a nuanced understanding of the rhetorical devices employed in these reports and provides a foundational basis for comprehending the role of language in shaping discourse on corporate social responsibility and sustainability within the financial sector.

Research Questions

This study aims to scrutinize the strategic employment of Metadiscourse within the environmental information disclosure sections of the CSR reports issued by China's four leading banks. Utilizing Metadiscourse analysis, the study seeks to address the following research questions:

- 1) How is Metadiscourse strategically utilized in these sections?
- 2) What specific environmental information do China's four major banks disclose through the use of Metadiscourse?
- 3) What environmental images are constructed of China's four major banks through the application of Metadiscourse in their CSR communications?

These research questions are intended to elucidate the strategic role of Metadiscourse in shaping the narrative surrounding environmental responsibility within the CSR reports of China's four leading banks, and to evaluate the impact of such discourse on the environmental image constructed for these banks in their CSR communications.

Corpus Construction and Research Steps

This section presents basic information about the corpus, research steps and the tools used for corpus building and data processing, followed by a detailed description of the analytical procedures.

Corpus Construction

The corpus for this study was carefully constructed to ensure its representativeness and comprehensiveness. It comprises the sections related to environmental information within the Corporate Social Responsibility (CSR) reports issued by the four major Chinese banks—Bank of China, Industrial and Commercial Bank of China, Agricultural Bank of China, and China Construction Bank—spanning the period from 2016 to 2021. These reports serve as the primary source of data, offering insights into the environmental information disclosure practices and strategies employed by these banks. The total corpus size amounts to 87,054 words, comprising 24 CSR reports in total, ensuring a substantial basis for quantitative and qualitative analysis.

Research Steps

Data Collection:

The first step involved the thorough collection of the CSR reports from the designated four Chinese banks, covering the specified six-year period. These reports were carefully selected to ensure they contained detailed information on environmental performance and disclosure.

Data Preparation:

After collecting the reports, the environmental performance-related sections were extracted and prepared for analysis. Subsequently, the data were converted into text files (T format) that are compatible with AntConc 3.5.9, allowing for smooth integration into the corpus search tool.

Corpus Creation:

Corpus creation involved importing the prepared text files into AntConc 3.5.9, a specialized software tool for text analysis. This step was crucial in creating the study's corpus, as it ensured that all the data extracted from the environmental performance sections of the reports were organized in a standardized and consistent format. By doing so, the data became readily accessible and suitable for subsequent analysis, allowing for a more efficient and accurate exploration of the environmental disclosure practices of the designated Chinese banks over the specified six-year period.

Metadiscourse Analysis (Frequency Calculation):

Utilizing AntConc 3.5.9, a quantitative analysis was performed based on Hyland's Metadiscourse model. The process involved using the search tool's capabilities to identify and initially categorize occurrences of both interactive and interactional Metadiscourse markers within the corpus. This automated identification was then complemented by a manual verification step to ensure accuracy. The ultimate goal of this analysis was to determine the

precise frequency of metadiscourse markers' usage in the corpus, thereby uncovering patterns and trends in how these markers were employed within the CSR reports.

Data Interpretation:

The quantitative results obtained from AntConc 3.5.9 were subsequently interpreted qualitatively. This step encompassed examining how the banks employed Metadiscourse resources not only to express their environmental achievements, plans, and aims but also to construct their environmental images.

Environmental Image Construction:

Building on the preceding quantitative and qualitative analysis, the study focused on providing an in-depth exploration of What environmental images the four major Chinese banks have constructed. This exploration covered various aspects of environmental disclosure, including carbon emissions, green credit, green finance, and public welfare activities, among others, emphasizing the banks' strategies in utilizing metadiscourse to mold their environmental narratives.

RESULTS AND DISCUSSION

The Frequency of Metadiscourse in Four Chinese Banks' CSR Report

The data presented in Table 2 delineates the frequency of Metadiscourse markers within the CSR reports of the four major Chinese banks. This quantitative assessment was performed using AntConc, a text analysis tool that enabled the compilation of Metadiscourse statistics. The data was carefully categorized and tagged manually in accordance with Hyland's (2008) Metadiscourse taxonomy, ensuring an accurate representation of the discourse features present in the reports.

Table 2: The Frequency of Metadiscourse in the Corpus

Category		Frequency	Percentage
Interactive Metadiscourse	Transitions	4,862	59.91%
	Frame markers	669	8.24%
	Endophoric	10	0.12%
	Evidentials	40	0.49%
	Code glosses	327	4.03%
	Total	5,908	72.79%
Interactional Metadiscourse	Hedges	316	3.89%
	Boosters	152	1.87%
	Attitude markers	83	1.02%
	Self-mentions	1,023	12.60%
	Engagement markers	634	7.81%
	Total	2,208	27.21%

Note: The Metadiscourse marker data in Table 2 were identified manually by the three authors based on context using the AntConc tool. Due to the manual identification process, there may be some variations present.

Table 2 above provides a comprehensive statistical overview of the frequencies of Hyland's Metadiscourse markers within the CSR reports of four leading Chinese banks, revealing the

strategic deployment of both interactive and interactional Metadiscourse in shaping the banks' environmental portrayals. The table reveals a clear disparity in the frequency of occurrence between Interactive and Interactional Metadiscourse. Specifically, Interactive Metadiscourse dominates with a total frequency of 5,908 occurrences, accounting for 72.79% of the total Metadiscourse markers identified in the corpus. Conversely, Interactional Metadiscourse comprises a lesser proportion, with a total frequency of 2,208 occurrences, constituting 27.21% of the total. This disparity suggests that the banks' CSR reports prioritize textual and structural organization over the expression of personal attitudes and engagement with readers.

Within the Interactive Metadiscourse category, several markers stand out as particularly prominent:

- 1) Transitions: The most frequently used Interactive Metadiscourse marker is Transitions, with 4,862 occurrences, accounting for an overwhelming 59.91% of all Metadiscourse markers. Transitions play a vital role in facilitating discourse coherence by connecting ideas and arguments within the CSR reports. Their high frequency reflects the banks' emphasis on a logical and cohesive flow of information, contributing to the overall readability and comprehension of their environmental disclosures.
- 2) Frame markers: Frame markers follow behind Transitions, with 669 occurrences, representing 8.24% of Interactive Metadiscourse. Frame markers help demarcate the discourse structure by signaling the boundaries of topics, arguments, or sections. Their use highlights the banks' intentional structuring of environmental information, making it easier for readers to follow and understand the key messages.

In contrast, within the Interactional Metadiscourse category, three markers emerge as particularly salient:

- 1) Self-mentions: Self-mentions dominate Interactional Metadiscourse, with 1,023 occurrences, constituting 12.60% of the total Metadiscourse markers. The banks' frequent use of self-references through personal pronouns, possessive adjectives, or nominalizations of the author/institution indicates a desire to establish a strong presence and authority in their environmental disclosures. This strategy likely aims to enhance credibility and promote trust in their environmental commitments and achievements.
- 2) Engagement markers: Engagement markers trail after Self-mentions, with 634 occurrences accounting for 7.81%. Engagement markers involve the readers by addressing them directly or appealing to their opinions, values, or experiences. Their use suggests that the banks strive to create a more inclusive and interactive discourse, inviting readers to engage with and reflect on their environmental disclosures.
- 3) Hedges: With 316 occurrences (3.89%), Hedges are also a notable category. Hedges allow the banks to express uncertainty or limit the absoluteness of their claims, demonstrating a more cautious and nuanced approach to environmental disclosures. This use of hedges reflects a desire to maintain credibility by avoiding overstated or unqualified assertions.

To summarize, the CSR reports of the four major Chinese banks exhibit a pronounced tendency towards Interactive Metadiscourse as opposed to Interactional metadiscourse, with a strong emphasis on textual organization and coherence. Among Interactive Metadiscourse features, Transitions and Frame markers stand out, aiding the clear, logical presentation of

environmental information. Conversely, within Interactional Metadiscourse, Self-mentions, Engagement markers, and Hedges are noticeable, fostering an engaging and nuanced discourse that builds readers trust in the banks' environmental efforts.

The Environmental Information Disclosures of Four Chinese Banks' CSR

The environmental disclosures of China's four major banks within their CSR reports are pivotal to environmental governance, showcasing the banks' environmental commitments and actions, and facilitating government planning for environmental protection strategies. In examining CSR reports of four prominent Chinese banks, it is evident that while the formats of their environmental information disclosures may vary, they collectively emphasize the following key aspects.

Carbon Emission

The issue of carbon emissions has been a persistent concern both globally and within China. The Chinese government has set ambitious environmental goals: to peak carbon emissions by 2030 and achieve carbon neutrality by 2060. These targets are pivotal for guiding the nation's environmental policies and strategies. Furthermore, the government is actively encouraging Chinese companies to align with these environmental objectives. This proactive stance is significantly advancing the cause of environmental protection and fostering a culture of sustainability within the corporate sector. As the cornerstone of China's financial sector, the four major banks exert a profound influence on societal development, necessitating their leadership in energy conservation and emission reduction. Consequently, addressing carbon emissions forms an integral component of their corporate social responsibility.

Example1:

According to related regulations of Beijing, BOC filled up the 2015 carbon emission report and hired the third-party institution to verify its carbon emission and submit the verification report. It purchased 20,311 tons of carbon emission quota at Beijing carbon trading market at an average price of RMB41.60/t. The cost was RMB844,937.6 and the transaction fee was RMB6,337.04, totaling RMB851,274.64. (BOC2016CSR)

Analysis:

In the context of Metadiscourse, "According to" serves as a frequently employed leading term within the category of Evidentials. Responding to the low-carbon requirements, Bank of China enlisted the services of a third-party institution to complete its carbon emission report. This action not only underscores the bank's commitment to addressing carbon emissions but also conveys crucial data to readers, highlighting the close correlation between the bank's measures and carbon emission reduction efforts.

Example2:

The Bank actively responded to and conformed to the State's regulations on and callings for energy conservation and emission reduction, and attached great importance to work related to energy saving and reduction in carbon dioxide emissions. The Bank earnestly implementing the Energy Conservation Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes, the Regulations of Beijing Municipality on the Administration of Household Garbage. (ABC2021CSR)

Analysis:

The underscored portion references legal frameworks established by the Chinese government, which are taken as Endophoric markers in the context. These statutory provisions mandate energy conservation and emission reduction for both individuals and enterprises within China. In the realm of Metadiscourse, these references constitute instances of Endophoric markers, serving as linguistic devices that direct attention to related ideas or information within the text. By invoking these legal mandates, Agricultural Bank of China not only elucidates the rationale behind its actions but also bolsters the authority and credibility of its environmental initiatives. This strategic use of Endophoric markers underscores the bank's commitment to aligning its practices with national policies and regulatory requirements, thereby reinforcing its dedication to environmental responsibility and sustainability.

Green Credit

Credit represents a crucial avenue for industries seeking access to financial resources. Numerous companies frequently resort to bank loans as a means of propelling their business endeavors. Wang et al. (2021) contend that the green credit business not only enhances the operational performance of commercial banks but also progressively optimizes their credit portfolio. By elevating the criteria for corporate loans, green credit has made adherence to environmental testing norms, pollution mitigation, and ecological preservation indispensable prerequisites for credit approval. This shift has emerged as a significant factor enabling banks to exert effective control over environmental protection considerations. As the stringency of pertinent policies escalates, the barriers to obtaining bank credit have risen correspondingly, rendering it exceedingly challenging for industries with substantial environmental pollution to secure loan approvals. Consequently, within the CSR reports of the four prominent Chinese banks, the disclosure of green credit-related information has become a matter of considerable public interest and an obligatory aspect of the banks' reporting obligations.

Example 1:

More proactive steps have been taken in granting green credit and the percentage of green credit services has been gradually increasing throughout CCB. In addition, credit extension is strictly controlled for customers and projects violating environmental laws and regulations, unsuited for local plan for environmental protection, with outdated industrial capacity or incurring high environmental and social risks. (CCB2016CSR)

Analysis:

The bank uses "In addition" as a transitional element to strengthen its argument, presenting a multi-faceted view of its green credit policies. By highlighting its proactive stance in granting green credit and demonstrating a gradual increase in the proportion of green credit services across its operations, China Construction Bank underscores its commitment to fostering the growth of environmentally sustainable industries. Furthermore, the bank emphasizes its rigorous control over credit extensions to customers and projects that infringe upon environmental laws and regulations, fail to align with local environmental protection plans, possess outdated industrial capacities, or entail high environmental and social risks. This strategic utilization of Metadiscourse, particularly the Transition "In addition," serves to bolster CCB's narrative, showcasing its comprehensive and stringent measures in ensuring the quality and impact of its green credit initiatives. Such disclosure not only enhances transparency but

also reinforces the bank's dedication to responsible lending practices and environmental stewardship.

Example 2:

As at the end of the reporting period, the Bank's outstanding green credit granted to energy saving and environmental-friendly projects and services such as ecological protection, clean energy, energy conservation and environmental protection and resource recycling were RMB 1,350,838 million. (ICBC2019CSR)

Analysis:

In this instance, Industrial and Commercial Bank of China employs specific exemplification, signaled by "such as," to augment comprehension by providing concrete instances that elaborate upon the preceding information. By specifying that, as of the reporting period's conclusion, the bank's outstanding green credit allocations to energy-saving and environmentally friendly projects and services—encompassing ecological protection, clean energy, energy conservation, environmental protection, and resource recycling—amounted to RMB 1,350,838 million, Industrial and Commercial Bank of China presents a thorough demonstration of its substantial commitment to green credit initiatives. This detailed breakdown not only enhances the clarity of the bank's messaging but also serves as compelling evidence of its concerted efforts to promote environmentally conscious lending practices. Through such precise data presentation, Industrial and Commercial Bank of China conveys its role in supporting a green economy and reinforces its image as a bank that prioritizes ecological sustainability.

Green Finance

Green finance represents a unique segment within the financial industry, where financial institutions adopt environmental protection as a fundamental principle when making investment and financing decisions. This entails thoroughly assessing potential environmental impacts and strategically adjusting business structures based on current situations. By doing so, green finance enables the sustainable growth of the environmental protection sector and promotes the healthy, sustainable, and balanced development of both the socioeconomic system and the ecological environment. Essentially, green finance is devoted to redirecting social and economic resources towards achieving environmental protection goals and fostering sustainable economic progress by supporting environmental industries (Zhang, 2018).

Moreover, green finance serves as a powerful tool for the development of environmentally friendly companies. In recent years, four major Chinese banks have been actively expanding their involvement in green finance, thereby providing vital economic support for environmental protection efforts. This commitment highlights their awareness of the crucial role that green finance plays in driving positive change and contributing to a more sustainable future.

Example1:

We promoted green finance and addressed climate change, providing financial momentum for green development. (BOC2020CSR)

Analysis:

This example, extracted from the preface of the Bank of China's 2020 CSR report, employs the first-person pronoun "We" to represent the bank, fostering an immediate sense of intimacy and approachability for the readership. By adopting such a personal tone at the outset, Bank of China strategically positions itself as an active participant in the promotion of green finance. This linguistic choice effectively communicates the bank's commitment to accelerating the green transformation within the financial sector, thereby projecting a proactive and environmentally conscious corporate image to the public. Furthermore, it underscores the institution's recognition of its pivotal role in addressing climate change and contributing to the broader goal of sustainable development through financial means.

Agriculture

Agriculture, with its deep historical roots, forms the cornerstone of China's development. Nevertheless, the extensive cultivation practices over the centuries have inflicted significant environmental degradation. In response, the Chinese government has long advocated the philosophy that "lucid waters and lush mountains are invaluable assets," underscoring the importance of environmental conservation. This principle has guided the implementation of strategic measures aimed at mitigating the ecological impact of intensive agricultural activities and addressing the environmental challenges that arise from such exploitation.

Banks, as pivotal financial actors, play a crucial role in bolstering the transition towards modern ecological agriculture. They provide the necessary economic impetus for sustainable practices within the sector. In this regard, the four principal Chinese banks have demonstrated proactive engagement, taking significant strides to support and finance initiatives that align with the vision of an ecologically balanced and sustainable agricultural model. Their efforts reflect a broader commitment to environmental responsibility and the promotion of green economic practices.

Example1:

The Bank has recognized that the development of ecological agriculture is an inevitable trend for the long-term survival of human society. Therefore, the Bank actively supported the green development of domestic agriculture, including forest cultivation, ecological circular agriculture, ecological aquaculture, comprehensive utilization of straw, production of organic agricultural products and application of green agricultural technology. (ICBC2021CSR)

Analysis:

In the Industrial and Commercial Bank of China's 2021 CSR report, the bank demonstrates a profound understanding of the imperative nature of ecological agriculture for the sustained existence of human society, employing the conjunctive adverb "therefore" to logically link this recognition to its subsequent actions. This strategic usage not only underscores the bank's forward-thinking approach but also highlights its commitment to fostering a green and sustainable agricultural sector. Notably, the bank's support extends beyond traditional green industries such as forestry and farming, encompassing a broad spectrum of activities including ecological circular agriculture, aquaculture, straw utilization, organic product production, and the application of cutting-edge green technologies. This comprehensive engagement with both established and nascent green industries underscores the bank's pivotal role in catalyzing the transformation and growth of the green agricultural sector, thereby emphasizing the intricate

and vital relationship between financial institutions and the sustainable development of agriculture.

Example2:

Shandong Branch: Building efficient ecological agriculture.

Focusing on leading local agricultural enterprises, the branch incorporates financial services in the upstream and downstream of the food industry chain. Since 2015, the branch has granted a total of RMB 9.72 billion to food industry in Binzhou City, and has initially realized the large circulation, full utilization and sustainable development of the food industry. (ABC2019CSR)

Analysis:

In Example 2, Agricultural Bank of China employs the Frame marker "Focusing on" to deliberately direct the reader's attention to its strategic emphasis on supporting local agricultural enterprises, thereby establishing a clear focal point within the narrative. This targeted approach involves integrating financial services throughout the food industry chain, from upstream production to downstream distribution. The substantial investment of RMB 9.72 billion by the Shandong Branch in Binzhou City's food industry since 2015 serves as a tangible manifestation of ABC's dedication to fostering efficient ecological agriculture. This financial commitment has facilitated the achievement of large-scale circulation, comprehensive utilization, and sustainable development within the food industry, highlighting ABC's instrumental role in stimulating the growth and transformation of ecological agriculture through strategic investments and holistic supply chain integration.

Environmental Risks

In the financial sector, risk management undoubtedly occupies a position of paramount importance and demonstrates remarkable efficacy in the operations of China's four largest banks. These institutions have recognized the critical role that risk management plays in ensuring their stability and success. Particularly noteworthy is their adoption of environmental risk management practices, which constitute a strategic approach to regulating and mitigating the various factors that can adversely affect the environment. By incorporating environmental considerations into their risk management frameworks, these banks are not only safeguarding their own operations but also making a substantial contribution to broader environmental protection efforts. This proactive stance towards environmental risk management underscores their commitment to sustainable practices and responsible banking, setting a commendable precedent for others in the industry to follow.

Example1:

Next, the Bank will improve its environmental and social risk management capabilities by improving the basic policies and systems, promoting the construction of a systematic and integrated management system for environmental and social risks, and hiring independent consultants for environmental and social risks. (CCB2018CSR)

Analysis:

The utilization of the Frame marker "Next" in this passage serves to delineate a distinct stage within the discourse, signaling the introduction of subsequent measures related to the bank's environmental and social risk management system. By employing this linguistic device, China

Construction Bank systematically outlines its concrete strategies for enhancing its risk management capabilities in 2018. These strategies encompass refining foundational policies and systems, fostering the development of a comprehensive and integrated management framework for environmental and social risks, and engaging independent consultants to further bolster risk mitigation efforts. Through these initiatives, CCB not only demonstrates its commitment to strengthening its risk management practices but also underscores its dedication to elevating societal awareness and promoting environmental protection. This strategic approach exemplifies CCB's proactive stance towards addressing environmental and social challenges, thereby setting a precedent for responsible banking practices in the industry.

Public Welfare Activities

The overarching objective of environmental public welfare activities is to elevate public consciousness and foster a commitment to the protection of natural resources and the environment. Leveraging the influential reach of the financial sector, banks have not only been pivotal in their financial operations but also possess a significant capacity to inspire societal action. Consequently, the four leading Chinese banks have been at the forefront of organizing diverse public welfare initiatives to fulfill their environmental responsibilities. These efforts span a range of activities, from on-the-ground engagement to digital campaigns, such as the "Letter to Nature" campaign launched by the Bank of China in 2021. Through such endeavors, these banks are not only fulfilling their social duties but also amplifying their role as catalysts for environmental stewardship and awareness within the community.

Example1:

It is a dialogue with nature, concerning not only the mountains and rivers, forests, fields, lakes and grass, but more importantly the community of common destiny for all human beings. (BOC2021CSR)

Analysis:

The Metadiscourse marker "importantly" in the excerpt from the Bank of China's 2021 CSR report acts as an evaluative device that signals to the reader the significance of the subsequent information. By emphasizing the word "importantly," the bank draws attention to the critical nature of the community of common destiny for all human beings, suggesting that this aspect is of greater importance than the mere listing of natural elements.

The use of "importantly" here is strategic, as it not only guides the readers' interpretation but also reflects the bank's values and priorities. It implies a hierarchy of importance within the message, where the concept of a shared destiny is positioned as the central and most meaningful element of the bank's environmental dialogue. This marker contributes to the persuasiveness of the discourse by reinforcing the bank's commitment to a holistic and inclusive approach to environmental protection.

Furthermore, "importantly" also serves to connect the immediate context with broader implications. It bridges the specific act of engaging in a dialogue with nature and the broader societal and environmental responsibilities. This Metadiscourse marker is a subtle yet powerful tool that enhances the coherence and persuasiveness of the bank's message, ensuring that the readers understand the gravity and the multi-layered significance of the bank's environmental stance within the context of its CSR initiatives.

The Construction of Environmental Image of Four Chinese Banks in CSR

The environmental images constructed by the four major Chinese banks through their CSR reports is a testament to their commitment to sustainability and environmental stewardship. These images are crafted through the skillful use of Metadiscourse, which serves to engage the readers, clarify intentions, and assert the banks' positions as leaders in green finance etc. The following discussion, grounded in the analysis of the CSR reports from 2016 to 2021, explores the multifaceted environmental images that these banks project.

Carbon Emission and Reduction Efforts

The banks' discourse on carbon emissions underscores their alignment with China's national goals for carbon neutrality. By employing Metadiscourse such as Evidentials ("according to") and Frame markers ("next") etc., the banks position themselves as compliant and proactive entities. They not only report their carbon footprint but also outline strategies for reduction, painting an image of responsibility and foresight.

Green Credit and Financial Innovation

The banks utilize Code glosses ("for example") and Endophoric markers ("as noted above") to elaborate on their green credit initiatives. These devices provide specific examples of green projects funded and the criteria for environmental compliance in loan disbursement. The image here is one of innovation and a shift towards a greener financial portfolio.

Agriculture and Ecological Support

In discussing their support for ecological agriculture, the banks use Transition markers ("therefore") to link their financial services to broader environmental outcomes. This narrative constructs an image of the banks as facilitators of sustainable agricultural practices, essential for China's environmental conservation efforts.

Environmental Risk Management

The banks' approach to environmental risk is communicated through Boosters ("clearly") and Attitude markers ("importantly"), which emphasize the certainty and significance of their risk management policies. This discourse constructs an image of the banks as vigilant and capable custodians of environmental risk, committed to safeguarding both the environment and their financial stability.

Public Welfare and Community Engagement

Through Self-mentions ("we") and Engagement markers ("let's"), the banks invite readers to participate in their environmental initiatives. This inclusive language constructs an image of the banks as community-driven organizations that value public involvement in environmental protection.

Global Participation and Leadership

The banks' engagement with international environmental standards and partnerships is highlighted through Interactive Metadiscourse. This discourse constructs an image of the banks as global actors who are not only responsive to local environmental needs but also influential in shaping international environmental policies.

The environmental images constructed by the four major Chinese banks through their CSR reports portray them as proactive, strategically innovative, and community-leading entities etc. They utilize Metadiscourse resources to articulate their environmental commitments, showcase their green initiatives, and affirm their role in promoting a sustainable future. These images are not only reflections of their current practices but also represent a vision of their continued dedication to environmental excellence. As they continue to evolve their environmental strategies, the banks' use of Metadiscourse will remain a critical tool in shaping and communicating their green identity.

CONCLUSION

This study presents a comprehensive analysis of the environmental images constructed by four major Chinese banks through their CSR reports spanning from 2016 to 2021. The research utilized a specialized corpus developed from the environmental sections of the CSR reports of Bank of China, Industrial and Commercial Bank of China, Agricultural Bank of China, and China Construction Bank, totaling 87,054 words. This CSR corpus served as the foundational data for the application of Hyland's (2008) Metadiscourse model, which was employed to examine the strategic linguistic choices made by the banks in their environmental disclosures.

The study employed AntConc 3.5.9 as the primary analytical tool, facilitating both quantitative and qualitative assessments of the Metadiscourse markers within the CSR reports. Through this analysis, the research addressed three key questions:

- **Strategic Utilization of Metadiscourse Resources:** Compared to Interactional Metadiscourse, the CSR reports of China's four major banks show a greater preference for the use of Interactive Metadiscourse. The findings revealed a pronounced emphasis on Interactive Metadiscourse, particularly Transitions and Frame markers, which were instrumental in organizing the banks' environmental narratives and enhancing the coherence of their disclosures.
- **Environmental Information Disclosure:** The banks disclosed substantial information regarding their environmental commitments, with a focus on carbon emission reduction, green credit, and support for ecological agriculture etc. These disclosures were strategically highlighted through the use of Metadiscourse, underscoring the banks' environmental stewardship.
- **Environmental Image Construction:** The CSR reports portrayed the banks as proactive and responsible environmental actors, with the Metadiscourse analysis revealing a deliberate construction of images that align with global sustainability goals and national environmental policies.

Theoretically, this study contributes to the discourse on Metadiscourse in the context of CSR reporting, particularly within the financial sector. It extends Hyland's model by applying it to a non-Western and industry-specific context, demonstrating the model's versatility and relevance in analyzing environmental discourse. The study also enriches the understanding of how language constructs corporate identity in relation to environmental responsibility.

Practically, the research offers valuable insights for financial institutions seeking to enhance their environmental communication strategies. It highlights the importance of Metadiscourse in shaping the perception of environmental responsibility, providing a framework for banks to

effectively convey their sustainability efforts. Furthermore, the study's findings can inform regulatory bodies and stakeholders about the significance of clear and strategic environmental disclosures in building trust and credibility.

In conclusion, this study underscores the pivotal role of Metadiscourse in the construction of environmental images within CSR reports. It provides a robust analytical framework for future research to explore the linguistic nuances of corporate sustainability discourse, contributing to both academic and practical advancements in the field of corporate social responsibility and environmental communication.

Funding:

This study is a phased achievement of the project titled "Research on the Construction of Chinese Enterprises' Overseas Social Responsibility Identity Discourse in the Context of 'Cultural Confidence'," which is funded by Guangdong Planning Office of Philosophy and Social Science (Grant No.: GD24XWY08).

References

- [1] Brammer, S., & Pavelin, S. (2006). Voluntary Environmental Disclosures by Large UK Companies. *Journal of Business Finance&Accounting*, 33(7-8), 1168-1188.
- [2] C, Gurau. (2013). Developing an environmental corporate reputation on the internet. *Marketing Intelligence & Planning*.
- [3] Cao, G. J. (2022). The New Development of International Sustainable Development Information Disclosure Standard and Its Impact and Inspiration on China's Financial Industry. *Southwest Finance*, 06, 17-29.
- [4] Chen, Q., Zhang S.X., & Chen, Y. Q. (2022). Experience and Trends in Environmental Disclosure by Banks. *China Finance*, 09, 50-51.
- [5] Chan, W. W. (2013). Environmental measures for hotels' environmental management systems: ISO 14001. *International Journal of Contemporary Hospitality Management*, 21(4-5), 542-560.
- [6] Chen, Y. S. (2008). The driver of green innovation and green image – green core competence. *Journal of Business Ethics*, 81(3), 531-543.
- [7] Gao, X. Y., Xiang, N., & Zhao, Q. (2022). Status Quo, Problems and Prospects of Environmental Information Disclosure in Chinese Commercial Banks. *Environmental Protection*, 50(05), 53-57.
- [8] Huang, J., & Zhang X. W. (2022). Exploring the Practice and Development of Commercial Banks' Environmental Information Disclosure under the "Dual Carbon" Goal. *Modern Finance Guide*, 09, 46-49.
- [9] Hossain, M. A., Islam, M. K. S., & Andrew, J. (2006). Corporate Social and Environmental Disclosure in Developing Countries Evidence from Bangladesh University of Wollongong Research Online. Hawaii: the Asian Pacific Conference on International Accounting Issues.
- [10] Hyland, K. (2008). *Metadiscourse*. Beijing, China: Foreign Language Teaching and Research Press.
- [11] Karim K. E., Lacina, M. J., & Rutledge, R. W. (2006). The Association between Firm Characteristics and the Level of Environmental Disclosure in Financial Statement Footnotes. *Advances in Environmental Accounting and Management*, 3(3), 77-109.

- [12] Kong, Y. B. (2022). A Study of Metadiscourse Use and Identity Construction in Chinese Diplomatic Speech. Liaoning Normal University.
- [13] Li, L. (2022). Study on the Legal System for Disclosure of Environmental Information by Financial Institutions. *Journal of Region Financial Research*, 08, 52-61.
- [14] Lei, Y. (2022). Improvement of Financial Institutions' Capacity for Environmental Information Disclosure. *China Finance*, 09, 46-47.
- [15] Li, Z. Q., & Hu, S. L. (2021). An Analysis of the Current Situation of Environmental Information Disclosure of Listed Banks in China. *New Finance*, 02, 35-39.
- [16] Ma R. (2012). A Study on the Social Responsibility of Financial Enterprises in China. Capital University of Economics and Business.
- [17] Ning, X. Q. (2022). Study on the Correlation between Corporate Environmental Information Disclosure Quality and the Cost of Bank Loans. Lanzhou University.
- [18] Shao, H. H. (2021). A Contrastive Study of the Construction of Corporate Environmental Protection Image in Chinese and American Energy companies' corporate social responsibility reports from the perspective of Multimodality. Guangdong University of Foreign Studies.
- [19] Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American Economic Review*. 71(3), 393-410.
- [20] V. Moskalenko; V. P. Kolosha; "Economic Component in The Field of Livestock as A Factor of Formation of Sustainable Development in The Context of Rural Areas", *BALANCED NATURE USING*, 2020.
- [21] Wang, M. H., Zhao, J. X., & Jin Q. Q. (2021). Study on the Performance of Green Credit Implemented by Chinese Commercial banks under the Threshold of Ecological Civilization. *Price Theory and Practice*, No.444(06), 115-118.
- [22] Wang, L. (2022). A Preliminary Study on the Construction of Corporate Culture and the Shaping of Corporate Image. Central China Normal University.
- [23] Wen, X. X., Yu, D.Z., & Deng X. (2007). A Comparative Analysis of CSR Reports of Major Financial Groups. *China Urban Finance*, 10, 17-20+4.
- [24] Wang, X. Y., & Ren, Q. X. (2022). Synergistic Development of Banks' Environmental Disclosure and Green Finance. *China Finance*, 17, 57-58.
- [25] Xian, D. X., (2021), An Analysis of the Motivation of Environmental Information Disclosure from the Perspective of Corporate Social Responsibility (CSR). *Economic Research Guide*, 19, 74-76.
- [26] Xu, H. P. (2022). Approaches to Environmental Disclosure by Financial Institutions. *Modern Commercial Banking*, 18, 44-47.
- [27] Yip, T. Y. (2006). Environmental Disclosure in Hong Kong, with Comparison to UK and Canada. Hong Kong Baptist University.
- [28] Yang, S. C., & Wang, X. Y. (2012). The Level of Environmental Information Disclosure and Its Influencing Factors in China's Banking Industry: An Empirical Analysis Based on 16 Listed Banks. *Finance Forum*, 17(03), 33-41+47.

- [29] Zou, M. Y. Construction and Promoting Strategy of Enterprise Figure Under NewEconomic Formation. Harbin Engineering University.
- [30] Zhang, X. L. (2018). Research on the Supervision Mechanism of Information Disclosure Finance. Shanghai Jiao Tong University.