

Chinese High-Tech Innovation and Corporate Social Responsibility in Africa

Posted on October 7, 2026

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Abstract

This study examines the relationship between technological innovation in the Chinese high-tech industry and corporate social responsibility (CSR) practices in Africa, with particular attention to firm performance, community development, environmental protection and **core business strategy**. A literature review develops hypotheses about direct associations, moderation and mediation, while a cross-sectional quantitative design reports online questionnaire responses from 580 participants in purposively selected firms. The frequency tables indicate predominantly favourable respondent perceptions of innovation and CSR. The reported correlation between Chinese high-tech innovation and African CSR practices is 0.852, and positive correlations also connect CSR with performance-related constructs. These findings describe associations in the supplied sample. The presented analyses do not include the interaction coefficients or indirect-effect estimates needed to establish moderation or mediation, and some hypothesis descriptions differ from their accompanying table labels. Cronbach's alpha coefficients indicate internal consistency of the scales rather than demonstrating their factor structure. The paper therefore distinguishes its proposed mechanisms from the associations actually reported. Its analysis offers a basis for further investigation of responsible business practices, cross-cultural collaboration and sustainable development in China-Africa business relationships, while recognising the limits of a cross-sectional, purposively selected sample.

Introduction

In an epoch marked by unparalleled global interconnectedness, the dynamics of international business relationships assume a pivotal role in shaping socio-economic landscapes. The interconnection between the technological innovation of the Chinese high-tech industry and its commitment to **Corporate Social Responsibility (CSR)** in Africa emerges as a multifaceted and evolving dimension within this intricate fabric. As Chinese enterprises expand their presence throughout the African continent, the influence of technological innovation on CSR practices becomes

an important area of exploration for scholars, policymakers, and industry leaders alike (Zou et al., 2022) (Chen, 2021). The Chinese high-tech sector, renowned for its swift technological advancements, is becoming a significant contender in the global economic stage. In parallel, Corporate Social Responsibility has evolved from being a mere act of philanthropy to a strategic imperative for businesses worldwide. This advancement is extremely noticeable in the situation of China's involvement with African countries, where the social, economic, and environmental outcomes of business activities are subject to strict examination (An et al., 2020) (Yu et al., 2021). To understand the complex connection between technological advancement in the Chinese high-tech industry and CSR practices in Africa, it is vital to explore the theoretical principles that govern these phenomena. Innovation theory supplies a framework through which we can comprehend the transformative potential of technological advancements, while CSR frameworks supply a systematic approach to evaluating business practices in terms of social and environmental responsibility. The interplay of these frameworks in the context of cross-cultural business dynamics lays the groundwork for a comprehensive exploration of the subject matter (Li et al., 2023) (Azam et al., 2023).

By carefully examining the existing literature, we hope to establish a coherent theoretical framework that informs our research methodology and guides our investigation of the factors that moderate and mediate the relationship between technological innovation in the Chinese high-tech industry and corporate social responsibility (CSR) practices in Africa. As we participate in this expedition, it is vital to recognize the significance of this examination not just for academia but also for the broader global community. The anticipated findings are expected to provide valuable insights for policymakers who seek to develop frameworks that promote responsible business practices, industry professionals who navigate the complexities of cross-cultural collaboration, and scholars who advance the discussion on sustainable development in an era of profound technological and economic transformations. In the subsequent areas, we will examine the complexities of the interaction between technological progress and CSR initiatives, investigating the factors that moderate and mediate this correlation. By means of this endeavor, our intention is to provide a nuanced comprehension of the implications for businesses that operate at the intersection of the Chinese high-tech industry and the African continent, thereby contributing to the ongoing discourse on responsible and sustainable global business practices. The literature review develops the hypotheses and problem statement, followed by the methodology, survey results, statistical analysis, discussion and conclusion.

Literature Review

There exists a favorable association between the technological innovation in the high-tech industry of China and the Corporate Social Responsibility (CSR) practices in Africa (Omonijo & Yunsheng, 2022). The investigation conducted by Omonijo and Yunsheng revealed that the advancement in technology

led by Chinese enterprises in Africa has a constructive influence on CSR within the mobile communication sector. The research scrutinized information obtained from 227 managers and retail proprietors of Chinese companies in Africa and employed various theories, such as TD theory, CSP concept, and AMO theory, to examine the relationship between technological innovation, profitability, and CSR. The findings demonstrated a positive correlation between the number of patents, technology innovation, profitability, and CSR, thereby indicating that technological innovation serves as a predictor for an upsurge in CSR involvement (Jian & Hongxia, 2023). The original proposition is formulated as follows:

Hypothesis 1 (H1): There is a positive relationship between Chinese high-tech industry technological innovation and African CSR practices.

Chinese high-tech industry technological innovation moderates the relationship between African CSR practices and firm performance (FP) (Omonijo, and Yunsheng, 2022). The studies suggest that technology innovation has a positive impact on CSR in the African mobile communication industry, with a strong correlation between technology innovation and CSR adoption rate. Additionally, the research indicates that business models and technological innovation modes mediate the relationship between CSR practices and innovation performance (Jian, and Hongxia, 2023). Furthermore, the degree of synergy in innovation ecosystems has a positive moderating effect on the innovation performance of technology development and transformation (Chen et al. 2017). These findings highlight the importance of technological innovation in driving CSR practices and firm performance in the Chinese high-tech industry, particularly in the context of African markets. Therefore, we come to the following hypothesis:

Hypothesis 2 (H2): Chinese high-tech industry technological innovation moderates the relationship between African CSR practices and FP.

Chinese high-tech industry technological innovation mediates the relationship between African CSR practices and firm performance (FP) (Omonijo, and Yunsheng, 2022) (Ma et al., 2010). The study by Omonijo and Zhang found a positive relationship between technology innovation, profitability, and corporate social responsibility (CSR) in the African mobile communication industry (Jian and Hongxia 2023). Similarly, Zhang and Li's study showed significant positive correlations between innovation performance and factors such as technology development and acquisition in Chinese high-tech service firms [4]. These findings suggest that technological innovation plays a mediating role in the relationship between CSR practices and firm performance in the Chinese high-tech industry. The third hypothesis is as follows:

Hypothesis 3 (H3): Chinese high-tech industry technological innovation mediates the relationship between African CSR practices and FP.

Specific CSR practices, such as community development and environmental protection, have a significant impact on financial performance (FP) in the African context. Studies have shown that the deployment of CSR practices in Cameroonian SMEs leads to performance benefits, including environmental protection, social charter endowment, and increased market shares (Choongo, 2017). However, it is important to note that in Ethiopia, current CSR practices are primarily ad-hoc philanthropy activities motivated by market performance and reputation building, with little focus on community development and social and environmental impacts (Aliye, 2020). On the other hand, research has indicated that there may be a connection between a company's CSR efforts and its stock price success, suggesting that enhancing CSR efforts can have a positive impact on FP (Rizwan and Jenita 2022). Additionally, in the context of the Marange diamond mining project, it is crucial to assess the environmental impact and CSR implementation to ensure that CSR responsibilities are fulfilled and environmental sustainability is promoted (Msosa, and Govender, 2019). Finally, in the Nigerian context, CSR has been found to be relevant to business and positively related to business performance, with indigenous Nigerian manufacturing companies practicing CSR unknowingly (Nwagu, 2020). The fourth hypothesis is as follows:

Hypothesis 4 (H4): Specific CSR practices, such as community development and environmental protection, have a significant impact on FP in the African context.

Businesses operating in Africa can improve their CSR practices by adopting Chinese high-tech industry technological innovation in their operations and integrating CSR practices into their core business strategy. The studies suggest that there is a positive relationship between technology innovation and CSR performance in the African mobile communication industry (Omonijo, and Yunsheng, 2022). Additionally, the performance of Chinese high-tech service firms in China is positively correlated with factors such as efficiency- and novelty-oriented business models, technology development, and technology acquisition (Jian, and Hongxia, 2023). Furthermore, the relationship between CSR and export performance is moderated by innovation in Chinese manufacturing SMEs (Li and Li 2023). It is argued that CSR can enhance the sustainability of Africa's growth by addressing social and environmental impacts and engaging in socially responsible behavior (Abdulai, D 2015). Therefore, adopting Chinese high-tech industry technological innovation and integrating CSR practices into core business strategies can contribute to improving CSR practices in African businesses. Therefore, we come to the following hypothesis:

Hypothesis 5 (H5): Businesses operating in Africa can improve their CSR practices by adopting Chinese high-tech industry technological innovation in their operations and integrating CSR practices into their core business strategy.

Problem Statement

The expansion in integration of Chinese high-tech industry firms into the business landscape of Africa has presented a group of opportunities and challenges, specifically in relation to Corporate Social Responsibility (CSR) practices. As China's process of technological advancement continues to expand on a global scale, there is an increasing necessity to examine how these advancements moderate and mediate CSR initiatives undertaken by Chinese high-tech companies operating in Africa. Despite numerous inquiries, CSR practices in the Chinese high-tech sector and African business environments have not been extensively analyzed in isolation, leading to a significant lack of understanding regarding the intricate relationship between technological innovation and CSR in this specific cross-cultural context.

Methodology

This research employs a "cross-sectional design" (CRD) and a "quantitative research approach" (QRC). The information is gathered through a structured online questionnaire administered to 580 study participants from firms operating in African countries with substantial CHIT. [Purposive sampling](#) is employed to choose the firms that satisfy specific inclusion criteria. The gathered information is examined utilizing SPSS programming, and the connections between the factors are investigated through regression analysis.

Survey Results

Frequency Table

Table 1: Frequency Table

Category	Frequency	Percentage
AGE		
18-24	115	19.8

25-34	113	19.5
35-44	120	20.7
45-54	114	19.7
55 and above	118	20.3
GENDER		
Male	283	48.8
Female	297	51.2
EDUCATION		
High school diploma or less	147	25.3
Bachelor's degree	152	26.2
Master's degree	148	25.5
Doctorate degree	133	22.9
CURRENT JOB POSITION		
Entry-level	78	13.4
Mid-level	253	43.6
Senior-level	136	23.4
Executive/Management	113	19.5

EXPERIENCE		
0-2 years	78	13.4
3-5 years	131	22.6
6-10 years	130	22.4
11-15 years	128	22.1
16 years and above	113	19.5
NATIONALITY		
African	238	41.0
Chinese	251	43.3
Other	91	15.7
SIZE OF YOUR COMPANY		
Small (1-50 employees)	156	26.9
Medium (51-250 employees)	133	22.9
Large (251-1000 employees)	140	24.1
Very Large (1000+ employees)	151	26.0
INDUSTRY SECTOR		
ICT/Technology	115	19.8

Manufacturing	135	23.3
Energy	99	17.1
Construction	116	20.0
Other	115	19.8
COUNTRY OF OPERATION		
Local	122	21.0
Regional	102	17.6
National	113	19.5
International	124	21.4
Global	119	20.5
YEARS OF OPERATION		
Less than 1 year	126	21.7
1-3 years	113	19.5
4-6 years	118	20.3
7-10 years	117	20.2
More than 10 years	106	18.3

Table 1 describes the 580 participants. The 35–44 and 45–54 age groups together contain 234 participants, or 40.3%, rather than more than 60%. Female participants account for 51.2%. These distributions describe the sample and do not establish representativeness of African companies or

communities.

The industry sector exhibits diversification, with notable presence from the fields of ICT/Technology, Manufacturing, and Construction. The operational scope of the country encompasses local, regional, national, international, and global levels, thereby indicating an environment characterized by globalization and diversity. Finally, the duration of operation reveals a distribution across various stages of business maturity, with a considerable number of respondents having engaged in business activities for less than one year, while others have amassed over a decade of operational experience.

Responses on Chinese high-tech industry technological innovation (CHIT)

Table 2: Frequency Table 2

Category	Frequency	Percentage
Chinese high-tech companies are innovative in their use of new technologies		
Strongly disagree	9	1.6
Disagree	59	10.2
Neutral	8	1.4
Agree	323	55.7
Strongly agree	181	31.2
The Chinese government provides sufficient support for technological innovation in the high-tech industry.		
Strongly disagree	7	1.2
Disagree	56	9.7
Neutral	15	2.6

Agree	344	59.3
Strongly agree	158	27.2
Intellectual property rights are well-protected in the Chinese high-tech industry.		
Strongly disagree	3	.5
Disagree	58	10.0
Neutral	10	1.7
Agree	307	52.9
Strongly agree	202	34.8
Chinese high-tech companies are competitive on a global scale.		
Strongly disagree	9	1.6
Disagree	51	8.8
Neutral	9	1.6
Agree	320	55.2
Strongly agree	191	32.9
Chinese high-tech companies are quick to adopt new technologies		
Strongly disagree	8	1.4
Disagree	56	9.7

Neutral	9	1.6
Agree	329	56.7
Strongly agree	178	30.7
Chinese high-tech companies prioritize research and development		
Strongly disagree	7	1.2
Disagree	57	9.8
Neutral	17	2.9
Agree	327	56.4
Strongly agree	172	29.7
Chinese high-tech companies collaborate effectively with other organizations in the industry.		
Strongly disagree	4	.7
Disagree	58	10.0
Neutral	10	1.7
Agree	359	61.9
Strongly agree	149	25.7
Chinese high-tech companies have a strong culture of innovation.		
Strongly disagree	9	1.6

Disagree	54	9.3
Neutral	10	1.7
Agree	335	57.8
Strongly agree	172	29.7
Chinese high-tech companies are able to attract and retain top talent		
Strongly disagree	8	1.4
Disagree	57	9.8
Neutral	13	2.2
Agree	309	53.3
Strongly agree	193	33.3
The Chinese high-tech industry has a positive impact on the overall economy.		
Strongly disagree	11	1.9
Disagree	56	9.7
Neutral	17	2.9
Agree	335	57.8
Strongly agree	161	27.8

Table 2 records the sample's responses about Chinese high-tech industries. From the supplied frequency counts, agreement or strong agreement is 86.9% for innovation, 86.6% for government support, 87.8% for intellectual property, 88.1% for global reach, 87.4% for adoption, 86.0% for

research and development, 87.6% for cooperation, 86.6% for talent, 87.4% for innovation culture and 85.5% for economic influence. In particular, the cooperation and talent rows indicate agreement, not the predominantly negative responses described in the original narrative. Percentages are rounded from counts out of 580; these responses are perceptions rather than independently measured industrial performance.

Responses on African CSR practices

Table 3: Frequency Table 3

Category	Frequency	Percentage
African companies have a responsibility to give back to the communities they operate in.		
Strongly disagree	5	.9
Disagree	55	9.5
Neutral	14	2.4
Agree	349	60.2
Strongly agree	157	27.1
African companies should prioritize environmental sustainability in their operations		
Strongly disagree	10	1.7
Disagree	51	8.8
Neutral	12	2.1
Agree	348	60.0
Strongly agree	159	27.4

African companies should engage in philanthropic activities to improve the welfare of society.		
Strongly disagree	10	1.7
Disagree	52	9.0
Neutral	13	2.2
Agree	338	58.3
Strongly agree	167	28.8
African companies should promote gender equality and diversity in the workplace.		
Strongly disagree	4	.7
Disagree	61	10.5
Neutral	16	2.8
Agree	331	57.1
Strongly agree	168	29.0
African companies should prioritize ethical business practices, even if it means sacrificing profit.		
Strongly disagree	10	1.7
Disagree	51	8.8
Neutral	17	2.9
Agree	315	54.3

Strongly agree	187	32.2
African companies should invest in education and skills development for their employees and communities.		
Strongly disagree	13	2.2
Disagree	57	9.8
Neutral	15	2.6
Agree	323	55.7
Strongly agree	172	29.7
African companies should work with local stakeholders to address social issues in their communities.		
Strongly disagree	12	2.1
Disagree	50	8.6
Neutral	17	2.9
Agree	331	57.1
Strongly agree	170	29.3
African companies should be transparent about their CSR initiatives and report on their progress.		
Strongly disagree	11	1.9
Disagree	68	11.7
Neutral	15	2.6

Agree	320	55.2
Strongly agree	166	28.6
African companies should prioritize the health and safety of their employees.		
Strongly disagree	9	1.6
Disagree	73	12.6
Neutral	20	3.4
Agree	309	53.3
Strongly agree	169	29.1
African companies should work to reduce their carbon footprint and promote sustainable practices.		
Strongly disagree	26	4.5
Disagree	75	12.9
Neutral	23	4.0
Agree	298	51.4
Strongly agree	158	27.2

Table 3 summarises respondents' views and viewpoints on the social responsibility and moral standards of African businesses in a variety of industries. The results show that the people polled had a strong sense of social duty and a commitment to corporate social responsibility (CSR). 87.3% of respondents agree or strongly agree that African businesses have a duty to give back to the communities in which they operate. With regard to environmental sustainability, 87.4% of respondents concur that African businesses should give it top priority in their operations. 87.1% of respondents agree or strongly agree that African businesses should participate in charitable

endeavours, demonstrating a commitment to public welfare. The importance of diversity and gender equality in the workplace is highlighted, with 86.1% of respondents agreeing that African businesses should support these ideals. With 86.5% agreeing or strongly agreeing that businesses should prioritise ethics, even if it means forgoing profit, ethical business practises are seen as being extremely important. 85.3% of respondents agree or strongly agree that African businesses should support education and skill development for their employees and communities, demonstrating the importance of this investment. 86.4% of respondents feel that working together with local stakeholders is important for addressing social challenges. Since 83.8% of respondents agree or strongly agree that they should be honest about their CSR activities and report on their success, it is clear that [transparency in CSR projects](#) is appreciated. With 82.4% agreeing or strongly agreeing, the majority supports prioritising the health and safety of employees. The fact that 78.6% of respondents agree or strongly agree that African businesses should try to lower their carbon footprint and support sustainable practises shows that there is knowledge of environmental challenges.

Responses on Firm performance

Table 4: Frequency table 4

Category		Frequency	Percentage
Our company has a clear vision and mission that guides our actions			
Strongly disagree	23		4.0
Disagree	73		12.6
Neutral	21		3.6
Agree	302		52.1
Strongly agree	161		27.8
Our company has a strong and well-respected brand			
Strongly disagree	19		3.3

Disagree	89	15.3
Neutral	16	2.8
Agree	295	50.9
Strongly agree	161	27.8
Our company has a strong market position relative to our competitors		
Strongly disagree	27	4.7
Disagree	70	12.1
Neutral	17	2.9
Agree	311	53.6
Strongly agree	155	26.7
Our company consistently meets or exceeds our financial targets		
Strongly disagree	21	3.6
Disagree	81	14.0
Neutral	20	3.4
Agree	300	51.7
Strongly agree	158	27.2
Our company has a strong culture that promotes innovation and creativity		

Strongly disagree	22	3.8
Disagree	74	12.8
Neutral	18	3.1
Agree	307	52.9
Strongly agree	159	27.4
Our company has effective leadership that inspires confidence and trust.		
Strongly disagree	19	3.3
Disagree	82	14.1
Neutral	16	2.8
Agree	307	52.9
Strongly agree	156	26.9
Our company has a diverse and talented workforce that is committed to our success		
Strongly disagree	21	3.6
Disagree	74	12.8
Neutral	19	3.3
Agree	301	51.9
Strongly agree	165	28.4

Our company has a well-established reputation for ethical and socially responsible behavior.		
Strongly disagree	23	4.0
Disagree	76	13.1
Neutral	16	2.8
Agree	310	53.4
Strongly agree	155	26.7
Our company is agile and able to adapt quickly to changes in the business environment		
Strongly disagree	13	2.2
Disagree	82	14.1
Neutral	15	2.6
Agree	311	53.6
Strongly agree	159	27.4
Our company has a clear strategy for growth and expansion		
Strongly disagree	17	2.9
Disagree	65	11.2
Neutral	18	3.1
Agree	323	55.7

Strongly agree	157	27.1
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Table 4 presents employee opinions on many facets of how their organisation operates. 79.8% of respondents, a substantial majority, said their organisation has a clear vision and goal that directs actions. 16.6% of respondents disagree or strongly disagree, thus there is space for improvement. 78.7% of respondents feel that their organisation has a strong and well-respected brand in terms of brand strength. Similarly, 80.3% of respondents think their business has a solid position in the market compared to rivals. With 79.0% of respondents believing that their organisation routinely achieves or exceeds financial goals, financial performance is seen favourably. A whopping 80.3% of respondents believe that the company has a culture that supports innovation and creativity. The importance of leadership is emphasised by the fact that 79.8% of respondents think their firm has effective leadership that fosters confidence and trust. With 80.3% of respondents believing that their organisation has a competent and varied team devoted to success, employee dedication and talent are recognised assets. The importance of ethics is demonstrated by the 80.2% of respondents who feel that their organisation has a solid reputation for acting ethically and responsibly in the community. The ability to swiftly adjust to changes is acknowledged, with 81.0% of respondents saying their organisation is nimble and able to do so. Last but not least, growth and expansion initiatives are seen favourably, with 82.8% of respondents agreeing that their organisation has a clear development and expansion strategy.

Responses on Specific CSR practices

Table 5: Frequency Table 5

Category	Frequency	Percentage
The company actively engages in community outreach programs		
Strongly disagree	16	2.8
Disagree	61	10.5
Neutral	21	3.6

Agree	330	56.9
Strongly agree	152	26.2
The company supports local education initiatives.		
Strongly disagree	8	1.4
Disagree	64	11.0
Neutral	22	3.8
Agree	316	54.5
Strongly agree	170	29.3
The company provides job opportunities for individuals in the local community		
Strongly disagree	12	2.1
Disagree	54	9.3
Neutral	16	2.8
Agree	334	57.6
Strongly agree	164	28.3
The company contributes to local charities and non-profit organizations		
Strongly disagree	10	1.7
Disagree	59	10.2

Neutral	15	2.6
Agree	333	57.4
Strongly agree	163	28.1
The company encourages its employees to volunteer in the local community		
Strongly disagree	12	2.1
Disagree	54	9.3
Neutral	19	3.3
Agree	338	58.3
Strongly agree	157	27.1

The company's participation in numerous community-focused events and its support for regional projects are detailed in Table 5. 83.1% of respondents, with 26.2% strongly agreeing, think the organisation actively participates in community outreach initiatives. 83.8% of respondents believe that the corporation supports regional educational programmes, and 29.3% strongly concur with this opinion. 85.9% of respondents believe that the firm offers jobs to people in the neighbourhood, including 28.3% who strongly agree. 85.5% of respondents believe that giving to local charities and nonprofits is a good idea, and 28.1% strongly agree. 85.3% of respondents agree with the company's practise of encouraging workers to serve in their community, with 27.1% strongly agreeing.

Responses on Environmental Protection

Table 6: Frequency table 6

Category	Frequency	Percentage
The company has implemented eco-friendly practices in its operations.		

Strongly disagree	9	1.6
Disagree	61	10.5
Neutral	8	1.4
Agree	323	55.7
Strongly agree	179	30.9
The company has set specific environmental goals and targets		
Strongly disagree	9	1.6
Disagree	59	10.2
Neutral	10	1.7
Agree	317	54.7
Strongly agree	185	31.9
The company invests in renewable energy sources		
Strongly disagree	6	1.0
Disagree	64	11.0
Neutral	13	2.2
Agree	309	53.3
Strongly agree	188	32.4

The company actively monitors and reduces its carbon footprint		
Strongly disagree	12	2.1
Disagree	56	9.7
Neutral	10	1.7
Agree	330	56.9
Strongly agree	172	29.7
The company encourages its suppliers and partners to adopt sustainable practices		
Strongly disagree	6	1.0
Disagree	63	10.9
Neutral	9	1.6
Agree	325	56.0
Strongly agree	177	30.5

The company's dedication to environmental sustainability and eco-friendly practises is detailed in Table 6. 86.6% of respondents, a sizable majority, agree or strongly agree that the business has incorporated eco-friendly practises into its operations, demonstrating a favourable opinion of the business' environmental endeavours. The formation of specific environmental goals and targets is also met with a similar reaction, with 86.6% of respondents agreeing. This suggests a calculated approach to sustainability. Considering that 85.7% of respondents agree or strongly agree that the firm is making efforts in this area, investments in renewable energy sources are seen favourably. With 86.6% of respondents agreeing, a sizable majority acknowledges the company's active monitoring and reduction of its carbon footprint, demonstrating a commitment to environmental responsibility. 86.5% of respondents agree or strongly agree that the firm pushes suppliers and partners to adopt sustainable practises, demonstrating the company's impact beyond its own operations.

Responses on Core business strategy

Table 7: Frequency table 7

Category	Frequency	Percentage
To what extent does our business strategy align with our overall mission and vision?		
Strongly disagree	12	2.1
Disagree	56	9.7
Neutral	7	1.2
Agree	327	56.4
Strongly agree	178	30.7
How well does our business strategy account for market trends and changes?		
Strongly disagree	11	1.9
Disagree	38	6.6
Neutral	5	.9
Agree	350	60.3
Strongly agree	176	30.3
To what degree does our business strategy emphasize innovation and adaptability?		
Strongly disagree	6	1.0
Disagree	40	6.9

Neutral	8	1.4
Agree	355	61.2
Strongly agree	171	29.5
How effectively does our business strategy allocate resources and prioritize initiatives?		
Strongly disagree	9	1.6
Disagree	52	9.0
Neutral	14	2.4
Agree	333	57.4
Strongly agree	172	29.7
How well does our business strategy differentiate us from competitors and create a unique value proposition?		
Strongly disagree	7	1.2
Disagree	57	9.8
Neutral	11	1.9
Agree	335	57.8
Strongly agree	170	29.3

Table 7 provides employee opinions on several facets of the company's business plan. 87.1% of respondents, with 30.7% strongly agreeing, think that the business plan is in line with the organization's overarching goal and vision. This may indicate a favourable sense of strategic alignment with the corporate objectives. 90.7% of respondents show agreement with this statement,

demonstrating a good understanding of and regard for market dynamics in the business strategy. A sizable majority, 90.7%, also concur that the company plan places a strong emphasis on innovation and flexibility, demonstrating an understanding of the value of these components in navigating a changing business environment. 87.1% of respondents agreed that the way resources are distributed and activities are prioritised is effective. The establishment of a distinctive value proposition and distinction from rivals are lastly acknowledged strengths, with 87.1% agreeing and 29.3% strongly agreeing. This supports the idea that the company's business plan is designed to distinguish it different from competitors.

Statistical Analysis

Scale Internal Consistency

Table 8: Scale Internal Consistency

FACTORS	NO. OF ITEMS	CRONBACH'S ALPHA
CHIT	10	.914
ACSRP	10	.911
FP	10	.896
CD	5	.833
EP	5	.884
CBS	5	.781

Table 8 reports Cronbach's alpha coefficients for the included scales. These are measures of internal consistency, not factor loadings. They do not by themselves demonstrate a factor structure or establish construct validity; those conclusions require the relevant analyses and measurement evidence.

Descriptive Statistics

Table 9: Descriptive Statistics

CATEGORY	MEAN	STANDARD DEVIATION
Age	3.01	1.415
Gender	1.51	.500
Education	2.46	1.103
Current job position	2.49	.954
Experience	3.12	1.324
Nationality	1.75	.710
size of your company	2.49	1.145
Industry sector	2.97	1.422
Country of operation	3.03	1.433
Years of operation	2.94	1.413
CHIT	4.05	.68142
ACSRP	3.9991	.70514
FP	3.8729	.76550
CD	3.9845	.73226
EP	4.0410	.77306

CBS	4.0693	.64668
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Table 9 reports descriptive statistics for the demographic codes and questionnaire scales. Demographic means, such as age 3.01 and gender 1.51, refer to category codes rather than ages in years or substantive numeric quantities. Their interpretation depends on the coding scheme, and means for nominal categories should not be treated as measurements of an underlying continuous characteristic. The scale means are CHIT 4.05, ACSRP 3.9991, FP 3.8729, CD 3.9845, EP 4.0410 and CBS 4.0693. Their reported standard deviations describe variation in the sample responses. The demographic variable labelled country of operation contains operational-scope categories rather than named countries.

Hypothesis Test

Hypothesis 1

For Hypothesis 1, which investigates the connection between CHIT and African CSR practises, we show the ANOVA and correlation data in this section.

Table 10: Correlation test

		ACSRP	CHIT
Pearson Correlation	ACSRP	1.000	.852
	CHIT	.852	1.000

Table 10 displays the correlation matrix between the two variables, ACSRP and CHIT, is shown in the table. The Pearson correlation coefficient, which ranges from -1 (perfectly negative correlation) to 1 (perfectly positive correlation), with 0 denoting no correlation, assesses the degree and direction of the linear link between two variables. In this instance, there is a noticeably high connection between ACSRP and CHIT. As anticipated, the correlation coefficient between ACSRP and itself is 1.000. The coefficient for the association between ACSRP and CHIT is 0.852. A high positive correlation between the two variables is indicated by this number. In other words, there is a significant propensity for the values of CHIT to grow when the values of ACSRP increase, and vice versa. It is typical for correlation

matrices to be symmetrical, with the correlation between CHIT and ACSRP being the same (0.852). This significant positive correlation between ACSRP and CHIT shows that individuals' responses to these two variables followed a regular pattern. This information may be used by researchers and analysts to better understand the relationship between ACSRP and CHIT and to think about the implications for their own research.

Table 11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	208.844	1	208.844	1527.113	.000 ^b
	Residual	79.046	578	.137		
	Total	287.890	579			

Table 11 provides important details regarding the model's goodness of fit and statistical significance by summarising the findings of a regression study. The sum of squares (SS) and degree of freedom (df) of the regression component of the model, which accounts for the explained variance, are both 208.844. This component's mean square (MS) is 208.844, its corresponding F-statistic is 1527.113, and its reported significance is .000 (interpreted as $p < .001$), which is very significant. This indicates that at least one predictor variable is significantly associated with the variance in the dependent variable, indicating that the whole regression model is statistically significant. The residual component has a sum of squares of 79.046 and 578 degrees of freedom, demonstrating unexplained volatility or error in the model. The residual component's mean square is 0.137. These numbers stand for the variation that the model is unable to explain. There are 579 total degrees of freedom and 287.890 total squares. This result supports the ANOVA and correlation findings and adds to the body of data supporting the favourable association between the two variables.

Hypothesis 2

Here, we examine the data supporting Hypothesis 2, which holds that CHIT moderates the interaction between FP and African CSR practises.

Table 12: Correlation test

		FP	ACSRP	CHIT
Pearson Correlation	FP	1.000	.737	.696
	ACSRP	.737	1.000	.852
	CHIT	.696	.852	1.000

Table 12 displays Three important variables—FP (firm performance), ACSR (African CSR practices), and CHIT—are related to one another in pairs, as shown by the correlation matrix. With a correlation value of 0.737, there is a significant positive association between FP and ACSR. This suggests that if participants’ reactions to firm performance (FP) grow, there is a strong propensity for their answers to increase as well as vice versa for African CSR practices (ACSR). Although a little less than the correlation between FP and ACSR, the correlation between FP and CHIT is 0.696, indicating a favourable link between these components. With a value of 0.852, the ACSR and CHIT have the greatest connection, demonstrating a significant positive link. This implies a similar pattern in individuals’ reactions across these two criteria, with greater scores on ACSR substantially related with higher scores on CHIT. Overall, these correlation coefficients enable researchers in comprehending the strength and kind of relationships among FP, ACSR, and CHIT in their dataset by offering insightful information about the interactions between the elements under study.

Table 13: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	189.913	2	94.957	366.803	.000 ^b
	Residual	149.372	577	.259		
	Total	339.285	579			

Table 12 reports positive correlations among financial performance, African CSR practices and Chinese high-tech industries. Table 13 supplies an ANOVA summary for a two-predictor model. Neither table provides an interaction term or its coefficient. The results therefore describe associations but do not establish that Chinese high-tech innovation moderates the relationship between African CSR practices and firm performance.

Hypothesis 3

Here, we examine the data supporting Hypothesis 3, which holds that CHIT mediates the interaction between FP and African CSR practises.

Table 14: Correlation test

		FP	CD	EP
Pearson Correlation	FP	1.000	.690	.678
	CD	.690	1.000	.742
	EP	.678	.742	1.000

Table 14 gives Pearson correlation coefficients for the three variables, FP, CD, and EP, showing their linear correlations. A correlation coefficient of 1.000 indicates a variable's complete connection with itself. In terms of the inter-variable correlations, FP and CD show a positive correlation of 0.690, indicating a linear link that is relatively strong. This implies that greater levels of FP and CD are related to one other, and vice versa. Similar to FP and EP, FP and EP have a 0.678 correlation, showing a second moderately strong positive linear association. Higher EP levels are correlated with higher FP values. A correlation of 0.742 between CD and EP also indicates a relatively significant positive linear link between these two variables. Understanding possible patterns or links within the dataset is facilitated by these correlation coefficients, which offer insights into the degree and direction of linear linkages between the variables.

Table 15: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	182.380	2	91.190	335.342	.000 ^b
	Residual	156.905	577	.272		
	Total	339.285	579			

Table 14 contains financial performance, community development and environmental protection. It does not contain Chinese high-tech industries. The reported correlations and Table 15's ANOVA summary cannot establish a mediated effect through Chinese high-tech industries. Direct and indirect effects, the relevant paths and uncertainty estimates are not supplied, so the mediation hypothesis remains unresolved.

Hypothesis 4

The fourth hypothesis suggests examining if particular CSR practises, such CD and EP, significantly affect FP in the African environment.

Table 16: Correlations for FP, CBS and CHIT

		FP	CBS	CHIT
Pearson Correlation	FP	1.000	.663	.696
	CBS	.663	1.000	.650
	CHIT	.696	.650	1.000

Table 16 shows the linear correlations between the three variables, FP, CBS, and CHIT, using Pearson correlation coefficients. Each variable's complete correlation with itself is indicated by the diagonal values, which are always 1.000. When looking at entries that are off the diagonal, the correlation between FP and CBS is 0.663, showing a somewhat positive linear association. This suggests that when FP values rise, CBS values tend to rise as well, and vice versa. A moderately strong positive linear link is shown by a greater correlation between FP and CHIT, which is stronger at 0.696. Higher values of CHIT match higher levels of FP. A somewhat favourable linear link between CBS and CHIT is indicated by their correlation of 0.650. These coefficients help us discover possible patterns or relationships between FP, CBS, and CHIT in the dataset by revealing information about the strength and direction of linear linkages.

Table 17: ANOVA Summary

Model	Sum of Squares	df	Mean Square	F	Sig.
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1	Regression	190.307	2	95.154	368.535	.000 ^b
	Residual	148.978	577	.258		
	Total	339.285	579			

The correlation table accompanying H4 contains financial performance, core business strategy and Chinese high-tech industries. Its labels do not match an interpretation about community development and environmental protection. The original measurements are retained, but the reported tables do not establish the stated hypothesis without the correctly identified model and coefficients.

Hypothesis 5

The purpose of hypothesis 5 is to ascertain the extent to which African enterprises may enhance their CSR practises by the use of CHIT in their business operations and the incorporation of CSR practises into their CBS.

Table 18: Correlations for ACSR, CBS and CHIT

		ACSRP	CBS	CHIT
Pearson Correlation	ACSRP	1.000	.669	.852
	CBS	.669	1.000	.650
	CHIT	.852	.650	1.000

Table 18 presents the Pearson correlation coefficients among three variables: ACSR, CBS, and CHIT. The diagonal entries, which consistently equal 1.000, indicate the perfect correlation of each variable with itself. By examining the off-diagonal values, it is observed that the correlation between ACSR and CBS is 0.669, suggesting a moderate positive linear relationship. As the values of ACSR increase, there is a tendency for the values of CBS to increase as well. The correlation between ACSR and CHIT is notably stronger at 0.852, indicating a robust positive linear association. Higher values of ACSR are strongly associated with higher values of CHIT. Finally, the correlation between CBS and CHIT is 0.650, representing a moderate positive linear relationship. As CBS values increase, there is a

tendency for CHIT values to increase as well. These correlation coefficients offer valuable insights into the strength and direction of linear connections between ACSRP, CBS, and CHIT, providing a foundation for comprehending potential relationships within the dataset.

Table 19: ANOVA Summary

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	215.527	2	107.764	859.284	.000 ^b
	Residual	72.362	577	.125		
	Total	287.890	579			

Table 18 reports African CSR practices, core business strategy and Chinese high-tech industries. Table 19 provides a regression ANOVA summary, but the supplied presentation does not identify the dependent variable and coefficient estimates clearly enough to assign the model to financial performance. Positive correlations should not be presented as a causal or moderated effect.

Discussion

The goal of the empirical analysis reported in this paper was to examine the complex interactions between firm performance (FP), African corporate social responsibility (CSR) practises, and technical innovation in the Chinese high-tech industry. A set of hypotheses that probed several facets of this complicated connection and provided light on both direct and moderating effects served as the foundation for our research. In the discussion that follows, we go into further detail about the consequences of our results and provide information about more general implications for companies doing business in Africa.

The supplied results document positive associations among the measured constructs in this purposively selected sample. They do not establish causal effects. In particular, no interaction coefficient is supplied for the moderation claim, no indirect-effect analysis is supplied for mediation, and several hypothesis descriptions conflict with the variable labels in the tables. These inconsistencies must be resolved against the underlying analysis before the original hypotheses can be accepted. The frequency tables describe participant perceptions, while Cronbach's alpha describes internal consistency rather than factor structure or validity.

Conclusion

The paper reports positive correlations among Chinese high-tech industries, African CSR practices and related performance measures in a sample of 580 participants. These associations warrant further investigation, but the supplied tables do not substantiate the original moderation and mediation conclusions. Correctly labelled regression models, interaction terms, indirect-effect estimates and supporting measurement analysis are required before those conclusions can be drawn. The findings should be interpreted as reported sample associations, with the proposed mechanisms remaining untested by the presented analyses.

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