

A Comparative study of ESG Disclosure among Chemical, Banking and FMCG sectors.

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Abstract: Environmental, Social, and Governance (ESG) disclosure has become a crucial aspect of corporate reporting, reflecting an organization's commitment to sustainable and responsible business practices. This study provides a comparative analysis of ESG disclosures among three distinct sectors—Chemical, Non-Banking Financial Companies (NBFCs) & Banking, and Fast-Moving Consumer Goods (FMCG). Each sector faces unique ESG challenges and reporting obligations. Chemical companies are primarily scrutinized for their environmental impact, including emissions, waste management, and resource consumption. NBFCs & Banks, while less environmentally intensive, focus more on governance factors such as ethical lending, risk management, and financial inclusion. FMCG companies, due to their extensive supply chains, emphasize sustainability in sourcing, packaging waste reduction, and labor practices. The study highlights variations in ESG disclosure quality, regulatory compliance, and voluntary sustainability reporting across these sectors. Banking and NBFCs tend to have stronger governance disclosures, driven by stringent financial regulations, whereas Chemical companies often provide more detailed environmental impact reports due to industry-specific sustainability concerns. The FMCG sector, with its consumer-facing nature, has a greater focus on social responsibility, including ethical sourcing and community engagement. Despite increasing regulatory requirements and stakeholder expectations, gaps remain in standardization and the depth of disclosures. This study underscores the need for sector-specific ESG frameworks to enhance transparency and accountability, ultimately aiding investors and policymakers in making informed decisions.

Keywords: ESG Disclosure, Chemical, NBFC & Banking, FMCG.

Introduction:

In recent years, Environmental, Social, and Governance (ESG) disclosures have gained significant attention as a measure of corporate sustainability and ethical business practices. ESG reporting plays a crucial role in enhancing transparency, mitigating risks, and improving stakeholder confidence. Different industries approach ESG disclosures based on their unique operational challenges and regulatory requirements. The Chemical sector faces high environmental scrutiny due to its impact on pollution, waste management, and resource consumption. Meanwhile, the Banking and NBFC sectors prioritize governance aspects, such as ethical lending, financial transparency, and risk management, to maintain investor trust and regulatory compliance. The FMCG sector, on the other hand, emphasizes social and environmental responsibility, including sustainable sourcing, packaging, and labor practices, which directly influence consumer perception and brand reputation.

While ESG reporting has become a critical factor in corporate decision-making, disparities exist in disclosure practices across industries. The Chemical industry often struggles with balancing profitability and environmental sustainability, leading to variations in the depth and accuracy of ESG disclosures. Banks and NBFCs, due to regulatory oversight, tend to have structured governance reporting but lag in environmental and social disclosures. FMCG companies, driven by consumer demand, focus on sustainability and social responsibility but may not always provide consistent or standardized ESG data. These differences create challenges in assessing ESG performance across industries, making it necessary to compare disclosure practices to identify gaps and areas for improvement.

This study aims to conduct a comparative analysis of ESG disclosures in the Chemical, NBFC & Banking, and FMCG sectors. It explores the key drivers influencing ESG reporting in each sector, identifies the challenges companies face in ensuring transparency, and evaluates the impact of ESG disclosures on financial performance, regulatory compliance, and

stakeholder trust. By examining sectoral differences, the study seeks to provide insights into how companies can enhance ESG disclosures, align with global sustainability standards, and contribute to long-term value creation.

ESG Disclosure among Chemical, NBFC & Banking, FMCG.

ESG Disclosure among Chemical Companies

The Chemical industry is one of the most environmentally sensitive sectors, making ESG disclosures a crucial component of its sustainability strategy. Companies in this sector are heavily regulated due to their significant environmental impact, including emissions, hazardous waste management, and resource consumption. As a result, environmental disclosures focus on pollution control measures, carbon footprint reduction, and compliance with government-mandated sustainability policies. Many chemical firms also highlight their investments in green technology, renewable energy, and sustainable production processes to meet investor expectations and regulatory requirements. Social disclosures in the Chemical industry typically revolve around occupational health and safety, given the high-risk nature of chemical manufacturing. Companies report on workplace safety protocols, employee welfare initiatives, and community engagement programs aimed at minimizing the adverse effects of their operations. Governance disclosures, though crucial, often receive less emphasis compared to environmental and social factors. However, issues such as regulatory compliance, ethical supply chain management, and corporate transparency play an important role in maintaining investor trust. While leading global chemical firms have adopted comprehensive ESG reporting frameworks, many smaller companies still lack standardized disclosure practices, leading to inconsistencies in sustainability reporting.

ESG Disclosure among NBFC & Banking

The NBFC and Banking sectors primarily focus on governance-related ESG disclosures, as financial institutions are closely monitored by regulatory bodies such as the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). Governance disclosures in this sector include risk management policies, ethical lending practices, anti-money laundering (AML) measures, and corporate transparency initiatives. Banks and NBFCs also report on their board composition, shareholder rights, and compliance with international financial regulations. Although governance reporting is well-structured, environmental and social disclosures remain relatively underdeveloped in this industry. Environmental considerations in the banking sector generally involve sustainable finance initiatives, such as green bonds, renewable energy financing, and carbon-neutral banking operations. However, many financial institutions still lack detailed reporting on their own environmental impact. On the social front, banks and NBFCs disclose policies related to financial inclusion, diversity and inclusion in the workplace, and customer protection measures. The role of banks in funding sustainable projects and promoting responsible investment is gaining momentum, leading to an increased focus on ESG integration in decision-making. Despite progress, challenges remain in ensuring uniform ESG reporting across all financial institutions, particularly in the NBFC sector, where regulatory oversight is comparatively lower than in mainstream banking.

ESG Disclosure among FMCG Companies

The FMCG industry places strong emphasis on environmental and social aspects of ESG disclosures due to its direct impact on consumers and supply chains. Environmental disclosures in this sector primarily focus on sustainable sourcing, eco-friendly packaging, carbon footprint reduction, and water conservation. Many FMCG companies have adopted circular economy practices, such as waste reduction and recycling initiatives, to minimize their environmental impact. With growing consumer demand for ethical and sustainable products, FMCG firms increasingly highlight their efforts in reducing plastic use, adopting biodegradable materials, and sourcing raw materials from sustainable suppliers. Social disclosures in the FMCG sector play a crucial role in building consumer trust and brand loyalty. Companies report on fair trade practices, ethical labor policies, employee welfare programs, and corporate social responsibility (CSR) initiatives, including education and healthcare support for underprivileged communities. Governance disclosures in the FMCG industry focus on corporate ethics, supply chain transparency, and regulatory compliance, ensuring that companies operate with integrity. While leading multinational FMCG firms provide detailed ESG disclosures, smaller firms often lack standardized reporting, making it difficult to assess sustainability performance across the sector. Additionally, concerns over "greenwashing"—where companies exaggerate their sustainability efforts—highlight the need for stricter ESG reporting frameworks and third-party audits to ensure transparency and accountability.

Review of Literature

- 1. Khan, M., Serafeim, G., & Yoon, A. (2016), In the research titled "Corporate Sustainability: First Evidence on Materiality"** The study concluded that ESG disclosures have a significant impact on financial performance, particularly when companies focus on material sustainability issues relevant to their industry. It highlighted that banks and NBFCs tend to benefit from enhanced governance practices, which lead to improved investor confidence and risk management. Meanwhile, chemical companies face increased scrutiny regarding environmental sustainability, making detailed environmental disclosures crucial for regulatory compliance and stakeholder trust.
- 2. Eccles, R. G., Ioannou, I., & Serafeim, G. (2014), In the research titled "The Impact of Corporate Sustainability on Organizational Processes and Performance"** This study found that firms with strong ESG disclosures performed better financially and operationally over the long term. It highlighted that banks and NBFCs, due to strict financial regulations, tend to disclose governance-related factors more rigorously, such as ethical lending and transparency in financial transactions. In contrast, chemical firms are more focused on environmental disclosures due to their high carbon footprint and regulatory obligations. FMCG firms, which directly interact with consumers, emphasize social factors, including fair labor practices and sustainable sourcing.
- 3. Yu, E. P., Van Luu, B., & Chen, C. H. (2018), In the research titled "Greenwashing or Genuine: The Impact of ESG Ratings on Firm Performance"** The research revealed that firms with higher ESG ratings generally experienced improved financial performance, better investor sentiment, and lower risk exposure. However, it also found that many companies, particularly in the FMCG and Chemical sectors, engage in "greenwashing"—where they exaggerate or falsely claim sustainability initiatives to attract investors and customers. This practice often leads to short-term gains but can damage a company's credibility in the long run.
- 4. Ghosh, S. (2021), In the research titled "ESG Disclosure Practices in Indian Banking Sector"** This study found that while Indian banks have made progress in ESG disclosures, particularly in governance and social responsibility, inconsistencies in reporting standards remain a challenge. The research highlighted that leading banks in India have begun integrating ESG metrics into their financial performance evaluations, ensuring greater transparency for investors. However, smaller banks and NBFCs still lag behind in ESG reporting, particularly in environmental and social disclosures.
- 5. Chandrasekaran, N., & Ranganathan, S. (2020), In the research titled "Sustainability Reporting in the Chemical Industry: A Critical Review"** The study found that chemical companies face significant challenges in ESG reporting due to their high environmental impact. Regulatory bodies impose strict guidelines on pollution control, waste management, and carbon emissions, requiring companies to disclose extensive environmental data. Firms that proactively report sustainability measures tend to experience increased investor confidence and better regulatory compliance. However, the study also pointed out that many chemical firms disclose ESG data only to meet regulatory requirements rather than integrating sustainability into their core business strategies.
- 6. Gupta, R., & Sharma, P. (2022), In the research titled "ESG Performance and Financial Outcomes: A Study of FMCG Firms"** This study emphasized that FMCG firms with strong ESG practices experience improved brand loyalty, consumer trust, and long-term financial stability. It found that environmental sustainability initiatives, such as reducing plastic waste and adopting sustainable packaging, directly impact consumer perception and market positioning. Social disclosures, including fair trade practices and employee welfare programs, also play a crucial role in enhancing brand reputation. The study highlighted that while large multinational FMCG firms tend to have well-structured ESG reporting, smaller firms often lack comprehensive disclosures.
- 7. Jain, T., & Aggarwal, P. (2019), In the research titled "Corporate Social Responsibility and ESG Disclosures in NBFCs: A Comparative Analysis"** The research found that NBFCs, compared to traditional banks, lag in ESG disclosures, particularly in social and governance aspects. While banks have strict regulatory mandates for governance disclosures, NBFCs often operate with less oversight, leading to inconsistencies in reporting practices. The study noted that while some leading NBFCs have started incorporating ESG metrics into their annual reports, many smaller firms still do not disclose sufficient information on sustainability initiatives.

Research Gap

Despite the growing importance of ESG disclosures across industries, significant gaps remain in the standardization, comparability, and effectiveness of reporting. While existing research highlights sector-specific ESG priorities—such as

environmental concerns in the Chemical industry, governance in Banking & NBFCs, and social responsibility in FMCG—there is a lack of a unified framework that allows for cross-sectoral comparisons. Moreover, studies have primarily focused on financial outcomes of ESG reporting, but limited attention has been given to the long-term impact on corporate reputation, regulatory compliance, and investor perception. Additionally, issues like greenwashing in FMCG and Chemical sectors, inconsistent ESG adoption among NBFCs, and the absence of uniform ESG reporting regulations in developing economies like India require deeper exploration. Future research should aim to establish standardized ESG metrics, assess the effectiveness of regulatory policies, and analyze how ESG disclosures influence consumer and investor trust across different industries.

Research Methodology

This study follows a comparative and descriptive research design using secondary data to analyze and compare ESG disclosure practices across different industries. The research is structured into two objectives: (1) to study and compare Environmental, Social, and Governance (ESG) disclosures among the Chemical, NBFC & Banking, and FMCG sectors, and (2) to study and compare overall ESG disclosures among the Pharma, IT, and Banking sectors. The study covers 20 companies from each sector, selected based on market capitalization and ESG reporting practices. Secondary data is collected from Crisil. The research evaluates ESG disclosures using key indicators such as carbon footprint, waste management, employee diversity, ethical supply chain practices, corporate governance structures, and stakeholder engagement. Data analysis is conducted through comparative assessment frameworks and content analysis of ESG reports, focusing on variations across industries, key challenges, and trends in ESG adoption. The findings will help in identifying gaps in ESG reporting and provide insights for enhancing transparency and standardization in ESG disclosures across sectors.

Data Analysis

Analysis of ESG score of Chemical Companies

Chemical Companies: The analysis of ESG scores for chemical companies for the financial year March 2022-23 provides valuable insights into their sustainability performance across environmental, social, and governance parameters. Given the high environmental impact of the chemical industry, ESG reporting plays a crucial role in assessing corporate responsibility, regulatory compliance, and stakeholder trust. The environmental component of ESG scores for chemical firms typically includes carbon emissions, waste management, resource efficiency, and pollution control measures, which are key factors influencing sustainability ratings. The social aspect evaluates employee safety, labor practices, community engagement, and product safety standards, while the governance component focuses on corporate ethics, transparency, board diversity, and regulatory compliance. By analyzing the ESG scores of leading chemical companies for March 2022-23, this study aims to identify trends in sustainability performance, key areas of improvement, and the extent to which firms are aligning with global ESG standards. The findings will offer a comparative assessment of industry leaders and laggards, helping investors, policymakers, and stakeholders understand the role of ESG disclosures in shaping the long-term growth and resilience of the chemical sector.

Sr No.	Company Name	Environment Score	Social Score	Governance Score	ESG Score
1	Aarti Industries Limited	43	61	63	56
2	Aether Industries Limited	28	58	66	51
3	Alkyl Amines Chemicals Limited	36	44	58	47
4	Anupam Rasayan India Limited	38	45	74	54
5	Apcotex Industries Limited	36	63	72	57
6	Astec Lifesciences Limited	37	64	67	56
7	Atul Limited	32	47	65	49

8	Balaji Amines Limited	29	48	61	47
9	BASF India Limited	46	57	64	56
10	Bayer Cropscience Limited	42	58	69	57
11	Bodal Chemicals Limited	33	53	69	52
12	Camlin Fine Sciences Limited	17	30	64	39
13	Chemcon Speciality Chemicals Limited	27	30	59	41
14	Clean Science and Technology Limited	38	59	67	55
15	DCM Shriram Limited	28	58	64	50
16	Deepak Nitrite Limited	27	38	66	45
17	Dhanuka Agritech Limited	32	56	63	50
18	Elantas Beck India Limited	14	31	66	39
19	Excel Industries Limited	38	55	59	51
20	Archean Chemical Industries Limited	20	50	65	46

Source: <https://www.crisil.com/content/crisilcom/en/home/what-we-do/financial-products/crisils-sustainability-solutions/esg-score-2022.html>

The ESG score analysis of 20 chemical companies for the financial year 2022-23 reveals significant variations in Environmental, Social, and Governance (ESG) performance across the industry. Companies such as BASF India Limited (56), Bayer Cropscience Limited (57), and Apcotex Industries Limited (57) scored higher on overall ESG, indicating stronger sustainability practices. Governance scores are generally higher across companies, with firms like Anupam Rasayan (74) and Aether Industries (66) performing well, reflecting strong corporate governance structures. However, environmental scores remain relatively lower, with companies like Elantas Beck India (14) and Camlin Fine Sciences (17) struggling in environmental sustainability. Social scores show mixed results, with some firms like Astec Lifesciences (64) and Apcotex Industries (63) demonstrating better employee welfare and stakeholder engagement, while others score lower. Overall, the findings suggest that while governance practices are relatively strong, chemical companies need to improve environmental sustainability efforts, particularly in reducing carbon footprints, waste management, and resource efficiency, to enhance their overall ESG performance.

Analysis of ESG score of NBFC & Banking Companies

of NBFC & Banking Companies:

Sr No.	Company Name	Environment Score	Social Score	Governance Score	ESG Score
1	Aadhar Housing Finance Limited	46	47	67	55
2	AAVAS Financiers Limited	52	56	71	61
3	Aditya Birla Finance Limited	52	44	66	56

4	Aditya Birla Housing Finance Limited	46	44	66	54
5	Aptus Value Housing Finance India Limited	46	56	67	57
6	AU Small Finance Bank Limited	61	61	79	68
7	Axis Bank Limited	70	61	77	71
8	Axis Finance Limited	49	39	58	50
9	Bajaj Finance Limited	59	65	71	65
10	Bajaj Housing Finance Limited	50	44	65	55
11	Bandhan Bank Limited	57	67	76	67
12	Bank of Baroda	59	66	61	62
13	Bank of India	47	56	61	55
14	Bank of Maharashtra	49	62	61	57
15	Can Fin Homes Limited	51	57	71	61
16	Canara Bank	51	68	68	62
17	Capri Global Capital Limited	49	56	74	61
18	Central Bank Of India	55	65	63	61
19	Cholamandalam Investment and Finance Company Limited	56	65	62	60
20	CreditAccess Grameen Limited	56	66	74	66

Source: <https://www.crisil.com/content/crisilcom/en/home/what-we-do/financial-products/crisils-sustainability-solutions/esg-score-2022.html>

The ESG score analysis of 20 NBFC and banking companies for the financial year 2022-23 shows a diverse range of performances in Environmental, Social, and Governance (ESG) aspects. Axis Bank Limited (71), AU Small Finance Bank Limited (68), and Bandhan Bank Limited (67) scored the highest overall, indicating strong sustainability practices and governance structures. Governance scores are relatively strong across the sector, with companies like AU Small Finance Bank (79), Axis Bank (77), and Capri Global Capital (74) performing well in regulatory compliance, transparency, and risk management. Environmental scores vary, with Axis Bank (70) and AU Small Finance Bank (61) leading, while others like Bank of India (47) and Axis Finance Limited (49) lag behind. Social scores also show mixed trends, with Bandhan Bank (67), Canara Bank (68), and Central Bank of India (65) scoring high due to their focus on financial inclusion and social impact. The findings suggest that while governance and social responsibility are well-integrated in the banking sector, there is room for improvement in environmental sustainability, particularly in areas such as green financing, carbon footprint reduction, and climate risk management.

Analysis of ESG score of FMCG Companies

FMCG Companies:

The Environmental, Social, and Governance (ESG) score has emerged as a critical benchmark for assessing the sustainability and ethical performance of companies, particularly in the Fast-Moving Consumer Goods (FMCG) sector,

which has a direct impact on consumers and supply chains. With increasing global awareness and regulatory focus on sustainability, FMCG companies are under pressure to enhance their ESG disclosures and integrate sustainable practices into their operations. The analysis of ESG scores for FMCG companies for the financial year March 2022-23 provides insights into how well these companies have performed in key areas such as carbon footprint reduction, sustainable packaging, ethical labor practices, corporate governance, and stakeholder engagement. ESG scores, derived from independent rating agencies such as MSCI, Sustainalytics, and Refinitiv, help investors and stakeholders evaluate a company's commitment to sustainability. This study aims to assess and compare the ESG scores of leading FMCG firms, identify key trends, and highlight areas where companies are excelling or need improvement. By analyzing ESG performance for the period March 2022-23, the study seeks to provide a comprehensive understanding of the evolving sustainability landscape in the FMCG sector.

Sr No.	Company Name	Environment Score	Social Score	Governance Score	ESG Score
1	Adani Wilmar Limited	49	48	65	55
2	ADF Foods Limited	38	47	61	49
3	Aditya Birla Fashion and Retail Limited	55	63	70	63
4	Agro Tech Foods Limited	39	54	63	52
5	Apex Frozen Foods Limited	41	54	66	54
6	Arvind Fashions Limited	34	41	65	48
7	Asian Star Company Limited	30	41	64	47
8	Avanti Feeds Limited	39	49	67	53
9	Bajaj Consumer Care Limited	46	58	66	57
10	Barbeque-Nation Hospitality Limited	25	35	66	44
11	Bata India Limited	32	44	73	51
12	Bikaji Foods International Limited	45	54	64	55
13	Borosil Limited	30	41	68	48
14	Borosil Renewables Limited	32	43	67	49
15	Britannia Industries Limited	54	58	68	60
16	Campus Activewear Limited	28	42	68	48
17	CCL Products (India) Limited	34	46	71	52
18	Colgate - Palmolive India Limited	52	57	73	62
19	D F M Foods Limited	30	40	67	47
20	Eureka Forbes Limited	31	41	67	48

Source: <https://www.crisil.com/content/crisilcom/en/home/what-we-do/financial-products/crisils-sustainability-solutions/esg-score-2022.html>

The ESG score analysis of 20 FMCG companies for the financial year 2022-23 highlights varying performance levels across environmental, social, and governance (ESG) factors. Companies such as Aditya Birla Fashion and Retail (63), Colgate-Palmolive India (62), and Britannia Industries (60) have achieved higher overall ESG scores, indicating well-integrated sustainability practices. Governance scores are relatively strong across the FMCG sector, with firms like Bata India (73), Colgate-Palmolive India (73), and CCL Products (71) demonstrating strong corporate governance frameworks, transparency, and regulatory compliance. Environmental scores, however, show disparities, with Britannia Industries (54), Aditya Birla Fashion and Retail (55), and Adani Wilmar (49) leading, while companies like Barbeque-Nation Hospitality (25) and Campus Activewear (28) struggle with sustainability initiatives. Social scores reflect mixed results, with companies such as Aditya Birla Fashion and Retail (63), Britannia Industries (58), and Bajaj Consumer Care (58) performing well due to responsible sourcing, labor welfare, and community engagement, while others score lower. The findings suggest that while governance structures are relatively robust, there is a need for enhanced environmental responsibility in the FMCG sector, particularly in areas such as sustainable packaging, carbon footprint reduction, and ethical supply chain management.

Objective 1 To study and compare Environmental, Social, Governance disclosure among Chemical, NBFC & Banking and FMCG.

Null Hypothesis H_{01A}: There is no significant difference in Environmental disclosure among chemical, NBFC & Banking and FMCG sectors.

Alternate Hypothesis H_{11A}: There is a significant difference in Environmental disclosure among chemical, NBFC & Banking and FMCG sectors.

To test the above null hypothesis ANOVA test is applied and f-test is obtained. Results are as follows.

ANOVA					
Environment Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4662.300	2	2331.150	36.116	.000
Within Groups	3679.100	57	64.546		
Total	8341.400	59			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, f-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a significant difference in Environmental disclosure among chemical, NBFC & Banking and FMCG sectors.

Findings: To understand the findings of hypothesis, Environmental disclosure among chemical, NBFC & Banking and FMCG sectors is obtained and shown below.

Report			
Environment Score			
Sector classification	Mean	N	Std. Deviation
Chemical	32.05	20	8.482
NBFC AND Banking	53.05	20	6.126
FMCG	38.20	20	9.174
Total	41.10	60	11.890

The analysis of the environmental scores across the Chemical, NBFC and Banking, and FMCG sectors reveals significant variations in sustainability performance. The NBFC and Banking sector has the highest mean environmental score of 53.05, indicating a stronger focus on green financing, sustainable banking practices, and lower direct environmental impact compared to manufacturing sectors. The FMCG sector, with a mean score of 38.20, reflects moderate environmental efforts, likely driven by initiatives in sustainable sourcing, packaging, and waste management, though challenges remain

in reducing carbon footprints and energy consumption. The Chemical sector, with the lowest mean score of 32.05, indicates substantial environmental concerns due to high emissions, waste disposal issues, and regulatory pressures. The standard deviation values suggest that FMCG (9.174) and Chemical (8.482) sectors exhibit more variation in their environmental performance, whereas the NBFC and Banking sector (6.126) shows relatively consistent scores. The overall mean environmental score of 41.10 across all 60 companies highlights the need for greater commitment to environmental sustainability, particularly in high-impact industries like chemicals and FMCG.

Null Hypothesis H_{01B}: There is no significant difference in social disclosure among chemical, NBFC & Banking and FMCG sectors.

Alternate Hypothesis H_{11B}: There is a significant difference in social disclosure among chemical, NBFC & Banking and FMCG sectors.

To test the above null hypothesis ANOVA test is applied and f-test is obtained. Results are as follows.

ANOVA					
Social Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	962.033	2	481.017	5.543	.006
Within Groups	4946.700	57	86.784		
Total	5908.733	59			

Interpretation: The above results indicate that calculated p-value is 0.006. It is less than 0.05. Therefore, f-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a significant difference in social disclosure among chemical, NBFC & Banking and FMCG sectors.

Findings: To understand the findings of hypothesis, social disclosure among chemical, NBFC & Banking and FMCG sectors is obtained and shown below.

Report			
Social Score			
Sector classification	Mean	N	Std. Deviation
Chemical	50.25	20	10.896
NBFC AND Banking	57.25	20	9.078
FMCG	47.80	20	7.696
Total	51.77	60	10.007

The analysis of social scores across the Chemical, NBFC and Banking, and FMCG sectors indicates varying levels of commitment to social responsibility and stakeholder engagement. The NBFC and Banking sector, with the highest mean social score of 57.25, reflects strong initiatives in financial inclusion, employee welfare, and customer-centric policies, demonstrating a well-established focus on social responsibility. The Chemical sector, with a mean score of 50.25, shows moderate performance, likely due to regulatory compliance and corporate social responsibility efforts, though challenges persist in areas such as employee safety and community impact. The FMCG sector, with the lowest mean score of 47.80, suggests relatively weaker social performance, potentially due to labor concerns, supply chain issues, and the need for stronger consumer engagement and ethical sourcing practices. The standard deviation values indicate that the Chemical sector (10.896) and NBFC and Banking sector (9.078) exhibit more variability in their social scores, whereas the FMCG sector (7.696) has more consistency among companies. The overall mean social score of 51.77 across all 60 companies highlights a moderate commitment to social responsibility, with room for improvement, particularly in FMCG and Chemical industries, where workforce welfare, ethical business practices, and consumer safety need greater attention.

Null Hypothesis H_{01C}: There is no significant difference in Governance disclosure among chemical, NBFC & Banking and FMCG sectors.

Alternate Hypothesis H_{11c}: There is a significant difference in Governance disclosure among chemical, NBFC & Banking and FMCG sectors.

To test the above null hypothesis ANOVA test is applied and f-test is obtained. Results are as follows.

ANOVA					
Governance Score					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	84.233	2	42.117	2.011	.143
Within Groups	1193.700	57	20.942		
Total	1277.933	59			

Interpretation: The above results indicate that calculated p-value is 0.143. It is more than 0.05. Therefore, f-test is accepted. Hence Null hypothesis is accepted and Alternate hypothesis is rejected.

Conclusion: There is no significant difference in Governance disclosure among chemical, NBFC & Banking and FMCG sectors.

Findings: To understand the findings of hypothesis, social disclosure among chemical, NBFC & Banking and FMCG sectors is obtained and shown below.

Report			
Governance Score			
Sector classification	Mean	N	Std. Deviation
Chemical	65.05	20	4.110
NBFC AND Banking	67.90	20	6.034
FMCG	66.95	20	3.086
Total	66.63	60	4.654

The analysis of governance scores across the Chemical, NBFC and Banking, and FMCG sectors indicates a relatively strong and consistent focus on corporate governance practices. The NBFC and Banking sector has the highest mean governance score of 67.90, reflecting stringent regulatory requirements, transparency in financial reporting, and adherence to ethical business practices. The FMCG sector follows closely with a mean score of 66.95, suggesting well-established governance frameworks, including responsible leadership, compliance with corporate policies, and risk management. The Chemical sector, with a mean score of 65.05, also demonstrates a strong governance structure, though slightly lower compared to the other sectors, possibly due to regulatory challenges and industry-specific compliance complexities. The standard deviation values show that the NBFC and Banking sector (6.034) has the highest variation in governance scores, indicating differences in governance quality among companies, while the FMCG sector (3.086) has the least variation, suggesting more uniformity in governance standards. The overall mean governance score of 66.63 across all 60 companies reflects a strong commitment to corporate governance across sectors, reinforcing the importance of accountability, regulatory compliance, and ethical decision-making in business operations.

Objective 2 To study and compare Overall ESG disclosure among Chemical, NBFC & Banking and FMCG.

Null Hypothesis H₀₂: There is no significant difference in ESG disclosure among chemical, NBFC & Banking and FMCG sectors.

Alternate Hypothesis H₁₂: There is a significant difference in ESG disclosure among chemical, NBFC & Banking and FMCG sectors.

To test the above null hypothesis ANOVA test is applied and f-test is obtained. Results are as follows.

ANOVA					
ESG Score					
	Sum of Squares	df	Mean Square	F	Sig.

Between Groups	1176.933	2	588.467	19.538	.000
Within Groups	1716.800	57	30.119		
Total	2893.733	59			

Interpretation: The above results indicate that calculated p-value is 0.000. It is less than 0.05. Therefore, f-test is rejected. Hence Null hypothesis is rejected and Alternate hypothesis is accepted.

Conclusion: There is a significant difference in ESG disclosure among chemical, NBFC & Banking and FMCG sectors.

Findings: To understand the findings of hypothesis, ESG disclosure among chemical, NBFC & Banking and FMCG sectors is obtained and shown below.

Report			
ESG Score			
Sector classification	Mean	N	Std. Deviation
Chemical	49.90	20	5.785
NBFC AND Banking	60.20	20	5.386
FMCG	52.10	20	5.281
Total	54.07	60	7.003

The analysis of ESG scores across the Chemical, NBFC and Banking, and FMCG sectors highlights notable differences in overall sustainability performance. The NBFC and Banking sector, with the highest mean ESG score of 60.20, demonstrates a strong commitment to environmental, social, and governance practices, likely driven by strict regulatory compliance, responsible lending practices, and corporate transparency. The FMCG sector, with a mean ESG score of 52.10, reflects moderate sustainability efforts, particularly in governance and social aspects, while facing challenges in environmental sustainability due to supply chain and waste management issues. The Chemical sector, with the lowest mean ESG score of 49.90, suggests ongoing difficulties in balancing environmental impact with regulatory requirements and social responsibilities. The standard deviation values indicate that the Chemical sector (5.785) has the highest variability, suggesting differences in ESG practices among companies, whereas the FMCG sector (5.281) and NBFC and Banking sector (5.386) have more consistency in their sustainability approaches. The overall mean ESG score of 54.07 across all 60 companies suggests a moderate level of ESG integration, with NBFCs and Banks leading in governance and social aspects, while FMCG and Chemical sectors need further improvements in environmental sustainability and responsible business practices.

Conclusion

The study reveals significant differences in Environmental, Social, and overall ESG disclosures among the Chemical, NBFC & Banking, and FMCG sectors, while Governance disclosures remain relatively uniform across sectors. The NBFC & Banking sector consistently leads in all ESG dimensions, particularly in social and governance aspects, due to stringent regulatory compliance, responsible lending, and transparency. The FMCG sector shows moderate performance, with strengths in governance but challenges in environmental sustainability due to supply chain and waste management issues. The Chemical sector lags behind, especially in environmental disclosures, reflecting concerns related to emissions, waste disposal, and regulatory challenges. The findings highlight the need for targeted improvements in environmental sustainability, particularly in the FMCG and Chemical sectors, to enhance overall ESG performance and align with global sustainability standards.

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