

Embedding Occupational Health and Safety into Corporate Governance: A BRSR and Legal Compliance-Based ESG Assessment Framework for Manufacturing Industries

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Abstract:

Environmental, Social, and Governance (ESG) considerations have become critical determinants of organizational sustainability, investor confidence, and long-term business resilience. While environmental performance and corporate governance mechanisms have received considerable attention within ESG frameworks, Occupational Health and Safety (OHS) remains insufficiently integrated into governance structures despite its direct influence on employee well-being, operational continuity, legal compliance, and social sustainability. In India, the introduction of the Business Responsibility and Sustainability Report (BRSR) framework by the Securities and Exchange Board of India (SEBI) has strengthened expectations regarding disclosure of workforce safety, health, human rights, and responsible business conduct. Simultaneously, the Occupational Safety, Health, and Working Conditions (OSHC) Code, 2020, has increased regulatory accountability for workplace safety management.

This paper proposes a governance-driven framework that integrates corporate governance, legal compliance, occupational health and safety, and ESG performance within manufacturing industries. Drawing on Agency Theory, Stewardship Theory, Stakeholder Theory, OECD governance principles, and BRSR disclosure requirements, the study develops a conceptual model that links board oversight, legal compliance management, occupational health and safety systems, employee well-being, and ESG reporting performance. The proposed framework positions OHS as a strategic governance issue rather than a compliance-driven operational function and introduces a structured pathway to improve ESG social performance. The study contributes to the emerging literature on sustainability governance by establishing clear relationships between governance mechanisms, workplace safety outcomes, stakeholder value creation, and sustainable industrial growth.

Keywords: Corporate Governance, Occupational Health and Safety, ESG, BRSR, Legal Compliance, Sustainability, Manufacturing Industry, ISO 45001, Safety Governance



1.0 Introduction

The global business environment has undergone a significant transformation during the past two decades. Traditionally, organizational success was evaluated primarily through financial indicators such as profitability, return on investment, market capitalization, and shareholder returns. However, growing concerns about climate change, social equity, employee welfare, ethical conduct, and corporate accountability have broadened stakeholder expectations beyond financial performance alone (Eccles *et al.*, 2014).

In response to these changing expectations, Environmental, Social, and Governance (ESG) frameworks have emerged as comprehensive mechanisms for evaluating organizational sustainability and long-term value creation. ESG performance is increasingly used by investors, regulators, customers, employees, and communities to assess how organizations manage environmental impacts, social responsibilities, and governance obligations (Friede *et al.*, 2015). Evidence suggests that organizations with strong ESG performance often demonstrate enhanced financial resilience, stronger stakeholder trust, improved reputation, and greater long-term competitiveness (Aouadi & Marsat, 2018).

Among the three ESG dimensions, the social pillar has received growing attention due to its direct relationship with workforce management, human rights, employee engagement, diversity, inclusion, and workplace safety. Occupational Health and Safety (OHS) constitutes one of the most critical components of social sustainability because it directly influences employee well-being, operational efficiency, productivity, organizational culture, and stakeholder confidence (Cooper, 2018).

Manufacturing industries, in particular, operate in environments characterized by significant occupational risks arising from machinery operations, hazardous chemicals, ergonomic stressors, energy sources, confined spaces, contractor activities, and complex production processes. Failure to effectively manage these risks can result in workplace injuries, occupational diseases, environmental incidents, legal penalties, reputational damage, and loss of investor confidence. Consequently, occupational health and safety has evolved from a regulatory requirement into a strategic business imperative.

Corporate governance provides the institutional framework through which organizations establish accountability, transparency, ethical conduct, and strategic oversight. According to the Cadbury Committee (1992), corporate governance refers to the system by which companies are directed and controlled. Governance structures define the distribution of rights and responsibilities among boards, management, shareholders, and stakeholders while establishing mechanisms for monitoring organizational performance. Effective governance promotes transparency, accountability, compliance, and sustainable decision-making.

The Organization for Economic Co-operation and Development (OECD) further emphasizes that corporate governance establishes the relationships among management, boards of directors, shareholders, and stakeholders while providing structures through which organizational objectives are determined and monitored. Governance principles such as transparency, accountability, independence, and stakeholder engagement have become increasingly important in achieving sustainable business performance.

Within the Indian context, corporate governance has gained significant prominence following economic liberalization, globalization, and regulatory reforms. The Companies Act, 2013, SEBI (Listing Obligations and Disclosure Requirements) Regulations, and the Business Responsibility and Sustainability Report (BRSR) framework have strengthened expectations regarding responsible business conduct, stakeholder accountability, sustainability disclosures, and governance effectiveness. Corporate governance is no

longer viewed solely as a mechanism for protecting shareholder interests; rather, it serves as a strategic framework for balancing economic, social, and environmental objectives.

The BRSR framework introduced by SEBI represents a major advancement in sustainability reporting and ESG disclosure practices in India. The framework is based on the National Guidelines on Responsible Business Conduct (NGRBC) and requires organizations to disclose performance across nine principles of responsible business conduct. Among these principles, Principle 3 (Employee Well-being), Principle 5 (Human Rights), and Principle 8 (Inclusive Growth and Equitable Development) are particularly relevant to occupational health and safety performance.

Despite growing recognition of workforce health and safety within ESG frameworks, many organizations continue to manage occupational health and safety as a compliance-driven operational function rather than a strategic governance issue. Board-level involvement in safety management often remains limited to reviewing incident statistics or regulatory compliance reports. Consequently, safety performance is frequently disconnected from broader governance, sustainability, and ESG objectives.

This gap becomes increasingly significant as investors and ESG rating agencies begin incorporating safety-related indicators into sustainability assessments. Metrics such as Lost Time Injury Frequency Rate (LTIFR), Total Recordable Injury Rate (TRIR), contractor safety performance, occupational disease prevalence, employee well-being initiatives, and safety leadership practices are increasingly viewed as indicators of organizational maturity and governance effectiveness.

Furthermore, the enactment of the Occupational Safety, Health and Working Conditions (OSHC) Code, 2020 has consolidated multiple labour laws and expanded employers' responsibilities regarding workplace health, safety, welfare, and working conditions. These developments highlight the need for stronger integration between legal compliance, corporate governance, occupational health and safety, and ESG performance measurement.

An examination of existing literature reveals that substantial research has been conducted separately on corporate governance, occupational health and safety management systems, sustainability reporting, and ESG performance. However, few studies have developed integrated frameworks that link board governance, legal compliance management, occupational health and safety performance, and BRSR-based ESG assessment in manufacturing industries. Moreover, empirical and conceptual models that position OHS as a strategic governance function rather than a compliance requirement remain relatively scarce.

Therefore, there is a need for a comprehensive framework that integrates governance principles, legal compliance obligations, occupational health and safety systems, and ESG reporting requirements into a unified assessment model to support sustainable industrial growth.

The present study seeks to address this gap by proposing a corporate governance–OHS–ESG framework tailored to manufacturing industries. The framework aims to establish clear relationships between governance structures, board oversight mechanisms, legal compliance systems, occupational health and safety performance, employee well-being, and ESG outcomes.

1.1 Research Gap and Objectives

1.1.1 Research Gap

Existing literature demonstrates substantial progress in the fields of corporate governance, occupational health and safety management, ESG reporting, and sustainability assessment. However, significant gaps remain.

1. Most governance studies focus on financial accountability and board effectiveness while providing limited attention to occupational health and safety governance.
2. OHS research primarily examines operational safety management systems rather than board-level governance mechanisms.
3. ESG frameworks recognize workforce safety as a material social indicator, yet practical models linking governance structures with OHS performance remain underdeveloped.
4. Limited research exists regarding integration of BRSR requirements, legal compliance obligations, and occupational health and safety governance within manufacturing industries.
5. Existing maturity models rarely incorporate governance leadership, legal compliance, OHS performance, and ESG disclosure into a unified assessment framework.

1.1.2 Objectives of the Study

The study seeks to:

1. Examine the relationship between corporate governance principles and occupational health and safety performance.
2. Evaluate the role of legal compliance in strengthening ESG social performance.
3. Develop an integrated corporate governance–OHS–ESG framework for manufacturing industries.
4. Establish governance indicators that support BRSR-based sustainability assessment.
5. Propose a maturity model for evaluating governance-driven OHS performance and ESG excellence.

2.0 Literature Review

2.1 Evolution of Corporate Governance

Corporate governance has evolved significantly from a narrow focus on shareholder protection to a broader stakeholder-oriented approach emphasizing sustainability, accountability, and responsible business conduct. Early governance models primarily focused on protecting investors against managerial opportunism and financial misconduct. However, contemporary governance frameworks recognize that long-term organizational success depends upon effective management of relationships among shareholders, employees, customers, suppliers, regulators, communities, and other stakeholders.

The Cadbury Committee (1992) defined corporate governance as the system by which organizations are directed and controlled. This definition emphasizes the role of governance structures in ensuring accountability, transparency, and effective decision-making. Similarly, OECD governance principles highlight the importance of establishing clear relationships among boards, management, shareholders, and stakeholders while promoting organizational integrity and long-term value creation.

Modern governance systems emphasize several core principles including transparency, accountability, independence, fairness, ethical conduct, stakeholder engagement, and regulatory compliance. These principles support sustainable organizational performance by ensuring that strategic decisions consider both economic and societal impacts.

2.2 Agency Theory and Governance Accountability

Agency Theory, developed by Jensen and Meckling (1976), remains one of the most influential theoretical foundations of corporate governance. The theory describes the relationship between principals

(shareholders) and agents (managers) and argues that managers may pursue personal objectives that conflict with shareholder interests.

Governance mechanisms such as independent boards, audit committees, risk management systems, disclosure requirements, and performance monitoring frameworks are designed to reduce agency conflicts and improve accountability. From an occupational health and safety perspective, agency theory suggests that safety governance mechanisms are necessary to ensure that management prioritizes employee welfare and workplace risk management alongside financial performance.

Board oversight of safety performance, safety-related key performance indicators (KPIs), and compliance audits can therefore be viewed as governance tools for reducing agency risks associated with inadequate workplace safety management.

2.3 Stewardship Theory

Stewardship theory offers an alternative perspective by suggesting that managers act as responsible stewards whose interests are aligned with organizational objectives. Unlike agency theory, which emphasizes monitoring and control, stewardship theory highlights trust, collaboration, and shared responsibility.

The theory is particularly relevant to sustainability and safety governance because effective occupational health and safety management often depends upon collaborative relationships among boards, management, supervisors, and employees. Stewardship-oriented governance encourages leaders to prioritize employee well-being, organizational resilience, and long-term value creation rather than short-term financial gains.

2.4 Stakeholder Theory

Stakeholder Theory, proposed by Freeman (1984), argues that organizations create value not only for shareholders but also for employees, customers, suppliers, communities, regulators, and society. According to this perspective, organizations have ethical and strategic responsibilities toward all stakeholder groups affected by their operations.

Occupational health and safety directly influences multiple stakeholders. Employees benefit from safer workplaces, investors gain confidence in risk management capabilities, regulators observe improved compliance performance, and communities benefit from responsible industrial operations. Consequently, stakeholder theory provides a strong theoretical basis for integrating occupational health and safety into corporate governance and ESG frameworks.

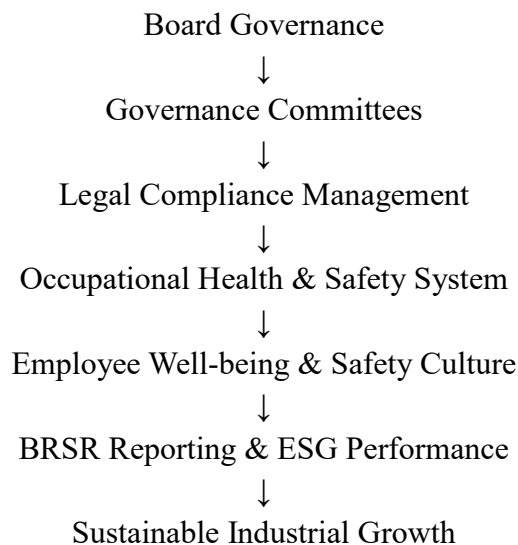
2.5 Occupational Health and Safety as a Governance Issue

Historically, occupational health and safety have been managed primarily as a regulatory compliance function. However, increasing evidence suggests that workplace safety is strongly associated with organizational performance, employee engagement, reputation management, and sustainability outcomes. Studies indicate that organizations with strong safety cultures often demonstrate superior operational performance, lower incident rates, higher employee satisfaction, and improved stakeholder trust. Safety leadership, management commitment, employee participation, and continuous improvement have been identified as critical determinants of safety performance.

Moreover, international standards such as ISO 45001 emphasize leadership accountability, worker participation, risk-based thinking, and continual improvement, thereby reinforcing the strategic importance of occupational health and safety management.

3.0 Conceptual Framework of the Study

The conceptual framework proposed in this study is based on the premise that effective board governance serves as the primary driver of legal compliance, occupational health and safety performance, employee well-being, and ESG outcomes.



This framework provides the foundation for the governance architecture and assessment model developed in the study's subsequent sections.

4.0 Governance Architecture for OHS-ESG Integration

4.1 Board Structure and Governance Oversight

Effective integration of Occupational Health and Safety (OHS) into Environmental, Social, and Governance (ESG) performance requires active oversight by the board of directors. Contemporary corporate governance frameworks recognize that boards are responsible not only for financial performance but also for sustainability, risk management, regulatory compliance, and stakeholder protection (OECD, 2015).

Corporate governance literature identifies transparency, accountability, independence, and ethical conduct as the foundation of effective governance systems. Boards establish organizational direction, approve strategic objectives, monitor performance, and ensure that management actions align with stakeholder expectations (Cadbury, 1992).

Within manufacturing industries, workplace safety and health pose material business risks that can affect operational continuity, legal compliance, reputation, investor confidence, and long-term sustainability. Consequently, occupational health and safety should be incorporated into board-level governance structures.

Table 1: Recommended Governance Structure

Governance Body	Primary Responsibility
Board of Directors	Strategic oversight and accountability
Audit Committee	Internal controls and assurance
Risk Management Committee	Enterprise risk management
ESG and Sustainability Committee	ESG and BRSR oversight
Health,, Safety and Sustainability Committee	OHS governance
Internal Audit Function	Compliance verification
Executive Leadership Team	Operational implementation

This structure ensures integration of governance, compliance, safety, sustainability, and reporting functions.

4.2 Role and Responsibilities of the Board of Directors

The Board of Directors serves as the highest governing authority within an organization and is responsible for protecting stakeholder interests while ensuring sustainable business performance.

4.2.1 Strategic Responsibilities

The Board should:

- Approve ESG strategy.
- Approve sustainability objectives.
- Integrate OHS into corporate strategy.
- Review sustainability risks.
- Monitor ESG performance.
- Establish governance accountability mechanisms.

4.2.2 Policy Governance Responsibilities

The Board should formally approve:

- Occupational Health and Safety Policy
- Sustainability Policy
- ESG Policy
- Human Rights Policy
- Code of Conduct
- Whistleblower Policy
- Contractor Safety Management Policy
- Business Ethics Policy

4.2.3 Performance Monitoring Responsibilities

The Board should periodically review:

- Lost Time Injury Frequency Rate (LTIFR)

- Total Recordable Injury Rate (TRIR)
- Fatalities
- Occupational Disease Cases
- Compliance Status
- ESG Performance Score
- BRSR Disclosures
- Sustainability Targets

4.2.4 Resource Allocation Responsibilities

The Board should ensure adequate:

- Financial resources
- Human resources
- Training budgets
- Safety technologies
- Digital monitoring systems

to support continuous improvement in OHS and ESG performance.

5.0 ESG and Sustainability Committee

Many organizations have established dedicated ESG Committees to strengthen governance oversight of sustainability performance. The ESG Committee serves as the link between governance structures and sustainability outcomes.

5.1 Environmental Responsibilities

The committee should oversee:

- Energy efficiency programs
- Climate change initiatives
- Carbon footprint reduction
- Water conservation
- Waste management
- Circular economy initiatives

5.2 Social Responsibilities

The committee should oversee:

- Occupational health and safety
- Employee well-being
- Diversity and inclusion
- Human rights protection
- Training and development
- Community engagement

5.3 Governance Responsibilities

The committee should monitor:

- Corporate ethics
- Regulatory compliance
- ESG reporting
- Risk management
- Stakeholder engagement
- Sustainability disclosures

6.0 Health, Safety and Sustainability Committee

A dedicated Health, Safety, and Sustainability Committee should be established to provide focused oversight of workplace health, safety, and employee well-being.

6.1 Key Functions

6.1.1 Safety Governance

- Review safety performance.
- Monitor leading and lagging indicators.
- Evaluate safety culture.
- Review major incidents.
- Monitor contractor safety.

6.1.2 Occupational Health Governance

- Health surveillance programs.
- Occupational disease monitoring.
- Ergonomic risk assessments.
- Wellness initiatives.
- Mental health programs.

6.1.3 Sustainability Governance

- Social sustainability initiatives.
- BRSR social disclosures.
- Human rights performance.
- Community welfare activities.

7.0 Audit Committee and Compliance Governance

The Audit Committee plays a critical role in governance assurance.

Responsibilities

The committee should:

- Review internal audit findings.
- Monitor compliance performance.
- Evaluate legal compliance systems.
- Review ESG disclosures.
- Monitor whistleblower mechanisms.



- Verify governance effectiveness.

7.0 Legal Compliance Management Framework

7.1 Compliance as a Governance Responsibility

Legal compliance forms an essential component of good corporate governance. Compliance failures can result in regulatory penalties, operational disruptions, reputational damage, and deterioration in ESG performance. Governance literature emphasizes that compliance should be viewed as a strategic responsibility rather than merely an administrative obligation. Board-level oversight ensures that organizations establish robust systems to identify, monitor, and comply with applicable legal requirements.

7.2 Occupational Health and Safety Compliance

Manufacturing organizations must comply with:

Occupational Safety, Health and Working Conditions Code, 2020

Key provisions include:

- Workplace safety
- Occupational health
- Welfare facilities
- Working conditions
- Safety committees
- Hazard management

State Factory Rules

Requirements generally include:

- Machine guarding
- Permit-to-work systems
- Fire safety
- Emergency preparedness
- Medical examinations
- Hazard communication

Labour Compliance

Relevant labour regulations include:

- Code on Wages, 2019
- Industrial Relations Code, 2020
- Social Security Code, 2020

Key indicators include:

- Wage compliance
- Social security coverage
- Employee welfare
- Working hours compliance

8.0 BRSR-Based OHS Governance Framework

8.1 Principle 3: Employee Well-being

Principle 3 emphasizes workforce health, safety, welfare, and development.

OHS Indicators

- Injury rates
- Safety training hours
- Occupational illnesses
- Health surveillance coverage
- Employee assistance programmes

8.2 Principle 5: Human Rights

Principle 5 promotes the protection of human rights throughout operations and value chains.

Indicators

- Safe working conditions
- Freedom of association
- Contractor welfare
- Anti-discrimination practices

8.3 Principle 8: Inclusive Growth

Principle 8 focuses on equitable development and community well-being.

Indicators

- Community safety initiatives
- Local employment generation
- Social investments
- Stakeholder engagement

9.0 Proposed ESG–OHS Assessment Framework

The proposed framework integrates governance, compliance, safety, well-being, ESG disclosure, and continuous improvement.

9.1 Dimension 1: Governance Leadership (20%)

Indicators:

- Board safety oversight
- ESG committee effectiveness
- Management review participation
- Leadership commitment

9.2 Dimension 2: Legal Compliance Management (15%)

Indicators:

- Legal register effectiveness
- Compliance audit performance
- Regulatory inspection outcomes

- Corrective action closure

9.3 Dimension 3: OHS Management System (20%)

Indicators:

- ISO 45001 implementation
- Risk assessments
- Incident investigations
- Emergency preparedness

9.4 Dimension 4: Employee Well-being (15%)

Indicators:

- Occupational health surveillance
- Wellness programmes
- Mental health initiatives
- Employee engagement

9.5 Dimension 5: ESG Reporting and Disclosure (15%)

Indicators:

- BRSR reporting quality
- ESG disclosure completeness
- External assurance
- Stakeholder communication

9.6 Dimension 6: Continuous Improvement (15%)

Indicators:

- Near-miss reporting
- Behaviour-based safety
- Digital safety initiatives
- Innovation projects

10.0 Governance Performance Indicators

10.1 Lagging Indicators

- LTIFR
- TRIR
- Fatality Rate
- Occupational Disease Cases
- Regulatory Violations

10.2 Leading Indicators

- Safety Training Hours
- Near-Miss Reporting Rate
- Safety Audits Completed



- Risk Assessments Conducted
- Safety Observations

10.3 Governance Indicators

- Board Safety Reviews
- ESG Committee Meetings
- Compliance Reviews
- Audit Closure Rate
- Whistleblower Cases Resolved

11.0 ESG–OHS Maturity Model

11.1 Level 1: Compliance Driven

Characteristics:

- Reactive safety management
- Minimal governance involvement
- Regulatory compliance focus

Score: 0–20

11.2 Level 2: Structured

Characteristics:

- Formal policies
- Compliance monitoring
- Safety procedures established

Score: 21–40

11.3 Level 3: Integrated

Characteristics:

- Governance and OHS alignment
- ESG reporting initiated
- Board review mechanisms

Score: 41–60

11.4 Level 4: Strategic

Characteristics:

- Board-level ESG oversight
- Data-driven safety management
- Integrated risk governance

Score: 61–80

11.5 Level 5: Transformational

Characteristics:

- Predictive analytics

- AI-enabled safety systems
- Sustainability leadership
- Industry benchmarking

Score: 81–100

12.0 Discussion

The findings of this study indicate that Occupational Health and Safety (OHS) should no longer be viewed merely as a compliance obligation but rather as a strategic governance function that contributes directly to Environmental, Social, and Governance (ESG) performance. Traditional safety management approaches have primarily focused on regulatory compliance and incident prevention. However, contemporary ESG frameworks require organizations to demonstrate broader accountability toward employees, investors, regulators, customers, and communities.

The proposed Governance–OHS–ESG framework expands the scope of safety management by integrating board oversight, legal compliance, employee well-being, sustainability reporting, and continuous improvement into a unified governance structure. This integration aligns with the principles of transparency, accountability, stakeholder engagement, and ethical conduct emphasized by corporate governance frameworks.

The framework also addresses the increasing expectations of investors and ESG rating agencies regarding workforce health and safety. Metrics such as Lost Time Injury Frequency Rate (LTIFR), Total Recordable Injury Rate (TRIR), occupational disease prevalence, contractor safety performance, employee well-being indicators, and safety culture assessments are increasingly considered material indicators of ESG performance.

The Business Responsibility and Sustainability Report (BRSR) framework further reinforces the importance of workplace safety through Principles 3 (Employee Well-being), 5 (Human Rights), and 8 (Inclusive Growth and Equitable Development). The proposed model provides organizations with a structured mechanism for aligning these disclosure requirements with governance systems and operational practices.

The integration of legal compliance within the governance architecture strengthens organizational resilience by ensuring systematic identification, evaluation, and management of statutory obligations. Compliance with the Occupational Safety, Health and Working Conditions Code, 2020, environmental legislation, labour regulations, and sustainability reporting requirements becomes a strategic component of governance rather than a reactive administrative activity.

The proposed maturity model further supports continuous improvement by enabling organizations to assess their current level of governance-driven OHS integration and identify opportunities for advancement toward ESG excellence.

12.1 Managerial Implications

The framework offers several practical implications for manufacturing organizations.

12.1.1 For Boards of Directors

Boards should:

- Incorporate OHS into corporate strategy.

- Review safety performance regularly.
- Establish ESG and Safety Committees.
- Integrate safety indicators into governance dashboards.
- Link executive compensation with ESG and safety performance.

12.1.2 For ESG Professionals

ESG managers should:

- Incorporate safety metrics into ESG reporting.
- Align OHS programs with BRSR requirements.
- Develop integrated ESG scorecards.
- Monitor social sustainability indicators.

12.1.3 For EHS Professionals

EHS leaders should:

- Engage with governance committees.
- Develop governance-focused safety KPIs.
- Strengthen legal compliance systems.
- Support ESG disclosure processes.

12.1.4 For Investors

The framework provides investors with a structured methodology for evaluating:

- Workforce safety performance.
- Governance effectiveness.
- Compliance maturity.
- Human capital management.
- Sustainability readiness.

12.2 Industry Implementation Roadmap

Successful implementation requires a phased approach.

12.2.1 Phase 1: Governance Foundation

Activities

- Establish ESG Committee.
- Establish Health and Safety Committee.
- Define governance responsibilities.
- Develop ESG and OHS policies.

Deliverables

- Governance Charter
- ESG Policy
- OHS Policy

12.2.2 Phase 2: Compliance Integration

Activities

- Develop legal register.
- Conduct compliance assessments.
- Implement compliance monitoring.

Deliverables

- Compliance Matrix
- Compliance Dashboard
- Audit Programme

12.2.3 Phase 3: OHS System Strengthening

Activities

- Implement ISO 45001.
- Conduct risk assessments.
- Strengthen incident management.

Deliverables

- Risk Register
- Safety Performance Dashboard
- Emergency Preparedness Programme

12.2.4 Phase 4: ESG Integration

Activities

- Align BRSR disclosures.
- Develop ESG KPIs.
- Integrate sustainability reporting.

Deliverables

- ESG Scorecard
- BRSR Reporting Framework
- Sustainability Dashboard

12.2.5 Phase 5: Digital Transformation

Activities

- Implement digital safety systems.
- Introduce predictive analytics.
- Develop real-time monitoring.

Deliverables

- AI-enabled Safety Monitoring
- Digital Compliance Tracking
- Predictive Risk Dashboard

12.3 Emerging Trends in Governance-Based Safety Management

The future of governance-driven OHS management will likely be shaped by several emerging trends.

12.3.1 Artificial Intelligence

Applications include:

- Predictive incident modelling
- Behaviour-based safety analytics
- Fatigue detection systems
- Risk forecasting

12.3.2 Internet of Things (IoT)

Examples include:

- Wearable devices
- Smart PPE
- Real-time exposure monitoring
- Connected safety systems

12.3.3 Digital Governance

Organizations increasingly use:

- Digital compliance platforms
- Electronic permit-to-work systems
- Governance dashboards
- Integrated ESG reporting platforms

12.3.4 Psychological Safety

Growing attention is being placed on:

- Mental health programmes
- Workplace stress management
- Employee well-being
- Organizational resilience

These emerging dimensions are expected to become increasingly important within ESG ratings and sustainability assessments.

12.4 Future Research Directions

The proposed framework provides several opportunities for future investigation.

Future studies may:

1. Validate the framework through empirical research.
2. Examine relationships between safety performance and ESG ratings.
3. Evaluate the impact of board safety oversight on organizational performance.
4. Develop quantitative governance–safety maturity indices.
5. Investigate contractor safety management within ESG frameworks.
6. Explore the role of artificial intelligence in governance-based safety management.
7. Compare governance-driven OHS performance across industrial sectors.
8. Assess the influence of safety culture on ESG social performance.

Longitudinal studies may further examine whether organizations demonstrating higher governance maturity achieve superior sustainability outcomes and stakeholder trust.

13.0 Conclusion

Occupational Health and Safety (OHS) has emerged as a critical determinant of organizational sustainability, workforce well-being, and long-term business resilience. Despite its significance, OHS has traditionally been managed as a regulatory compliance function rather than a strategic governance priority. This study addresses this gap by proposing a comprehensive Corporate Governance–OHS–ESG Assessment Framework that integrates board oversight, legal compliance, occupational health and safety management systems, employee well-being, and Business Responsibility and Sustainability Report (BRSR)-based ESG performance within manufacturing industries.

Drawing upon agency theory, stewardship theory, stakeholder theory, OECD governance principles, and Indian regulatory requirements, the proposed framework positions OHS as an essential governance responsibility. The study demonstrates that effective board leadership, dedicated governance committees, robust legal compliance mechanisms, and structured safety management systems can significantly enhance social sustainability performance and strengthen organizational ESG outcomes. The framework further aligns workplace safety and health initiatives with BRSR Principles 3 (Employee Well-being), 5 (Human Rights), and 8 (Inclusive Growth and Equitable Development), thereby providing a practical mechanism for integrating regulatory compliance and sustainability reporting.

The proposed six-dimensional assessment model and five-level ESG–OHS maturity framework offer organizations a structured approach for evaluating governance effectiveness, compliance maturity, safety performance, employee well-being, disclosure quality, and continuous improvement. By incorporating leading, lagging, and governance indicators, the framework enables organizations to move beyond reactive compliance toward proactive and predictive safety governance.

Furthermore, emerging technologies such as Artificial Intelligence, the Internet of Things (IoT), digital governance platforms, predictive analytics, and real-time monitoring systems present significant opportunities to advance governance-driven safety management. Organizations that successfully integrate these technologies with strong governance practices are likely to achieve superior ESG ratings, enhanced stakeholder trust, improved operational resilience, and sustainable competitive advantage.

Overall, this study contributes to the growing body of literature on sustainability governance by establishing a clear linkage between corporate governance, legal compliance, occupational health and safety, and ESG performance. The framework provides manufacturing organizations, policymakers, ESG practitioners, investors, and regulators with a practical roadmap for embedding safety governance into corporate decision-making and achieving sustainable industrial growth. Future empirical validation of the proposed model across different industrial sectors will further strengthen its applicability and support the development of governance-driven approaches to occupational health, safety, and sustainability excellence.

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