

Developing an Effective Safety Culture A Leadership Approach

Faisal Saleh Al-Nezari

DOI: 10.29322/IJSRP.16.02.2026.p17045
<https://dx.doi.org/10.29322/IJSRP.16.02.2026.p17045>

Paper Received Date: 19th January 2026
Paper Acceptance Date: 16th February 2026
Paper Publication Date: 24th February 2026

Abstract. This paper highlights the critical role that the leadership plays in this process and examines how the companies may create a strong safety culture. It contains the qualitative study that conducted through stakeholder interviews, evaluates the literature on safety culture, and provides a framework for the incorporating Job Safety Analysis into permit-to-work systems. The main significance of management's commitment, the financial benefits of a robust safety culture, and best practices for maintaining it are the important factors to remember. The difficulties in creating a safety culture, the functions of the different stakeholders, and the incorporation of the Safety Management Systems are covered in this paper.

Index Terms: Safety Culture, Leadership, Organizational Safety, Risk Management, Employee Engagement, Safety Performance, Safety Commitment, Workplace Behavior, Industrial Safety, Safety Communication

Executive Summary

The current report addresses the issue of how a productive culture of safety should be developed in organizations with the help of promoting a leadership approach. The significance of the safety culture receives illustration in terms of decreased accidents, better performance of the employees, and advancements of organizational reputation. According to the study, the organizational leaders must commit and engage employees as a central force of cultural change across the work place. The main findings reveal that a favorable safety culture is very important in creating effective operations, low risks, and sustainability of the operations. Moreover, the report addresses such challenges as resistance to change and consistency of communication as well as such best practices as having clear safety policies, safety training programs, and modeling. The future trends express the necessity of permanent evaluation, defining strategic investments in safety leader training, or defining measurable indicators of safety performance. The summary will support investors in making vital decisions to succeed in safety culture practices, based on the critical development of safety culture practices in the high-risk environment.

Introduction

A. Background and Research Problem

Safety in the work place is one of the primary issues in any industry, though more emphasis is given to industries where work environment is potentially hazardous like in the construction, oil and gas, health care and manufacturing sector. Even the regulatory frameworks and safety management systems fail to help many organizations avoid cases that could be prevented. One of the major

leading factors is the improper development of proactive approach to safety culture. This contemporary paper will look at the strategies to develop an effective safety culture with emphasis on the vital role that leadership plays towards shaping safety-related behaviors, values, and practices.

B. Significance of Study

An effective safety culture plays a crucial role in providing occupational health and safety (OHS), boosting employee morale, reducing organizational risks of operational stoppages and safeguarding organizational image. A good safety culture lowers workplace accidents and the cost incurred, increases regulatory compliance and develops stakeholder confidence. It may be the deciding factor, to the difference between sustainable operations and absolutely disastrous failures, in industries with potential high risks. The components of an excellent safety culture are depicted in Figure 1, and they are more than procedures because they are also based on employee engagement, modeling of leadership and systems integration.

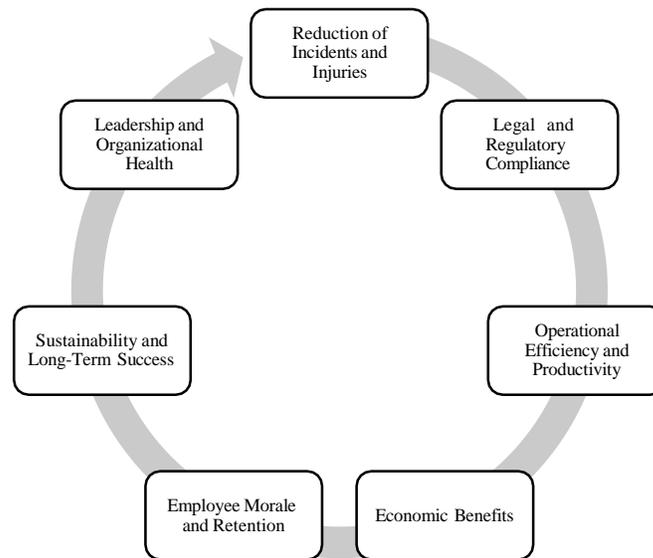


Figure 1. Fundamental Aspects of Safety Culture

C. Research Objectives

This study aims to achieve the following objectives:

1. Identify key elements that influence the development of a workplace safety culture.
2. Assess the impact of leadership behaviors and commitment on safety performance.
3. Propose a practical framework for integrating Job Safety Analysis (JSA) into permit-to-work (PTW) systems.
4. Highlight challenges and long-term requirements for maintaining a strong safety culture.
5. Provide best practices and real-world examples of successful safety culture transformation.

D. Scope of the Report

This paper will cover:

- A comprehensive literature review to identify core themes related to safety culture.

This publication is licensed under Creative Commons Attribution CC BY.

10.29322/IJSRP.16.02.2026.p17045

- A qualitative analysis based on interviews with safety professionals and organizational stakeholders.
- Presentation of a practical framework for enhancing safety performance through leadership engagement.
- Examination of the economic and operational implications of safety leadership.
- Illustration of effective strategies through case studies and applied scenarios.

Research Design and Methodology

The research methodology of this study was qualitative and was based on a comprehensive literature review, expert opinion and thematic analysis. The key goals were to find out the necessary elements of an effective safety culture, assess the importance of leadership, synthesize a coherent model. The following methods were employed:

A. Literature Review

A thorough review of existing literature was conducted to establish theoretical foundations, identify critical elements, and outline best practices for developing a safety culture. Academic databases such as Scopus, Web of Science, and Google Scholar were utilized to collect peer-reviewed journal articles, books, and reports published from 2005 to 2023. Search keywords included "safety culture," "leadership in safety," "safety management systems," and "workplace safety."

B. Expert Opinion Analysis

Insights were gathered from safety professionals from various industries, including construction, oil and gas, manufacturing, and healthcare. This approach aimed to capture practical insights into the challenges, strategies, and success factors involved in establishing and maintaining a robust safety culture.

C. Thematic Analysis

The expert opinion data were analyzed using thematic analysis. Transcripts were manually coded to identify recurring patterns and themes related to safety culture, leadership commitment, employee engagement, and system integration. NVivo software facilitated the systematic organization and analysis of the qualitative data.

Results

A. Summary of Key Points

- Safety culture is critical in various industries, requiring a comprehensive approach beyond written policies alone.
- Leadership plays a pivotal role in fostering a safety culture, influencing behaviors, and setting the tone for organizational safety.
- Establishing a safety management system (SMS) is essential before developing a safety culture, requiring careful planning and implementation.
- Observing and managing performance fluctuations are crucial for identifying trends and continuously improving safety practices.
- Establishing a safety culture demands considerable time and effort, necessitating a long-term commitment from all organizational levels. This process involves transforming ingrained attitudes, beliefs, and behaviors, and relies on continuous reinforcement and improvement. To achieve success, regular training sessions and refresher courses are essential.

1. Recommendations for Future Efforts

- Invest in ongoing training and education to reinforce safety principles and keep employees engaged.
- Enhance communication channels for sharing safety information and promoting a culture of transparency.
- Conduct regular reviews and assessments of safety performance to identify areas for improvement and set realistic goals.
- Foster collaboration among stakeholders, including employees, management, and regulatory bodies, to drive collective efforts toward safety excellence.

Discussion

i. Leadership and Commitment to Safety

Leadership is essential in shaping and sustaining a strong safety culture within organizations. Effective safety leadership involves articulating a clear vision, modeling safe behaviors, allocating adequate resources, and fostering a culture of openness and accountability (Hofmann & Morgeson, 2004). Leaders influence organizational safety attitudes through strategic actions and by embedding safety as a core value rather than treating it as a mere compliance requirement (Blair, 2003).

Setting the Tone for a Safety Culture

Senior leaders establish the tone by aligning safety goals with the organization's mission and ensuring that safety is prioritized at all operational levels. This alignment helps integrate safety into decision-making processes, reinforcing it as a fundamental principle (Leonard & Frankel, 2012). A visible commitment to safety from leadership encourages employees to adopt safe practices and take ownership of their safety responsibilities.

Resource Allocation and Policy Development

Leadership commitment is demonstrated through the allocation of sufficient resources—financial, human, and time—to support safety initiatives. Developing comprehensive safety policies in collaboration with technical experts and frontline workers, as well as conducting regular audits and inspections, are critical responsibilities of effective leaders (Afzal et al., n.d.).

Modeling and Accountability

Leaders who consistently demonstrate safe practices serve as role models, setting expectations for the entire workforce. This modeling fosters a culture of accountability, where employees understand their individual roles in maintaining safety and are encouraged to adhere to established safety standards (Skeepers & Mbohwa, 2015).

Communication and Employee Engagement

Open communication and inclusive engagement are vital components of leadership in safety. Leaders should establish clear communication channels, encourage feedback, and promote employee participation in safety training, hazard assessments, and safety committees (Khan, Ahmad, & Ilyas, 2018). These efforts build trust and reinforce the significance of safety at all levels.

Continuous Improvement and Strategic Vision

Effective safety leaders promote a culture of continuous improvement by regularly reviewing safety practices, addressing performance gaps, and adapting to regulatory and operational changes (Yang et al., 2009). This ongoing commitment ensures that the Safety Management System (SMS) remains dynamic and responsive.

Establishing a No-Blame Culture

Promoting a no-blame culture is crucial for ensuring transparency in incident reporting. When leaders advocate for a non-punitive reporting environment, employees are more likely to report near misses and hazards, which enables the implementation of preventive measures and systemic improvements (Freiwald, 2013).

ii. The Economic Impact of Safety Culture

Several companies from a variety of industries have proved the economic benefits of cultivating a strong safety culture. For example, Alcoa, a manufacturing business, saw its market value expand fivefold over 13 years while considerably increasing safety indicators, resulting in cost savings and increased productivity. ExxonMobil, an oil company, claimed a 75% drop in incident rates over 15 years, resulting in significant savings from lower injury-related expenditures and operational interruptions. BHP Billiton, a mining business, observed a 71% fall in Lost Time Injury Frequency Rate (LTIFR) over ten years, resulting in fewer workers' compensation claims and more production. Furthermore, Southwest Airlines maintained an excellent safety record while attaining financial success, which aided operational efficiency and customer loyalty [10-13].

Table 1. Real-Life Benefits of Safety Culture

Organization	Industry	Economic Benefits of Safety Culture	Reference
Alcoa	Manufacturing	Achieved a 5-fold increase in market value over 13 years while significantly improving safety metrics. Safety improvements translated into cost savings and productivity gains.	[1]
ExxonMobil	Energy	Reported a 75% reduction in incident rates over 15 years, resulting in substantial cost savings from reduced injury-related expenses, insurance premiums, and operational disruptions.	[2]

BHP Billiton	Mining	Saw a 71% decrease in Lost Time Injury Frequency Rate (LTIFR) over 10 years, leading to reduced workers' compensation claims and insurance costs, as well as improved productivity and employee morale.	[3]
Southwest Airlines	Aviation	Maintained a remarkable safety record while achieving financial success, consistently reporting profits even during economic downturns. Safety initiatives contributed to operational efficiency and customer loyalty.	[4]
Toyota	Automotive	Focused on safety and quality improvements, leading to significant cost savings from reduced recalls, warranty claims, and legal expenses. Safety investments also improved brand reputation and customer trust.	[5]

iii. The Role of Safety Culture in Preventing Incidents

An effective safety culture would prove indispensable in reducing the prevalence of incidents related to the organization, such as organizational crises, disasters, amongst others, by demanding safety standards be followed at every level of operation. Afzal et al. (n.d.) elaborate that one of the most important practices in the development of such a culture is conducting thorough investigations of unsafe behaviors and risk circumstances that should begin with domestic workplace problems. This involves carrying out risk assessment, controlling or removing hazards, using the right personal protective gear (PPE) and ensuring standard operating procedure (SOP). By focusing on these direct and immediate factors one lays a firm ground on how to institutionalize safety in the daily operations.

Safety culture is not solely produced at the frontline leadership level; it has flexible, active participation of employees who contribute to the process of making safety culture through open reporting of risks and occurrences. Employees working in a mature safety culture organization tend to report their near misses and unsafe conditions because they are assured that management will take relevant action to rectify the situation. The preventive component of this proactive reporting prevents the minor risks to escalate to become major events.

When safety is established as an organizational value in an excellent safety culture the decision-making process becomes directed to safety in all the departments. Leadership has a very important role to enact safe practices, encourage safety policies and provide compliance (Afzal et al., n.d.). This practice takes the safety standard beyond compliance-making an organizational priority. As a result, highly effective safety culture may considerably reduce the occurrence of incidents and increase the level of safety at the workplace.

To conclude, safety culture is an aspect which prevents and provides strategic value. It enhances responsibility, clear channels of communication, and stable safety routines, thus supplementing the effectiveness of the formal systems of safety management. Finally, sound safety culture does not only curtail the incidences but also assists an organization in becoming resilient and performing.

iv. The Relationship Between Safety Culture and the Safety Management System (SMS)

An effective Safety Management System (SMS) and a strong safety culture are linked and through the other each is reinforced and strengthened. An effective safety culture is the behavioral / attitudinal building block that is needed to allow the formal structures and procedures of an SMS to thrive. The two relationships are mutual: on the one part, safety culture empowers commitment and employee participation at the organizational levels; on the other hand, SMS supplies the systematic framework to execute and maintain safety programs successfully.

A strong safety culture will make safety one of the fundamental organizational values, which must be firmly imbedded in every-day practices and in decision-making. Roughton and Mercurio (2002) suggest that their driving engine in promoting safety measures, reporting and constant improvements is the safety culture because it has been found to motivate people by encouraging them to follow safety protocols, reporting and finding ways of constant development. Through this alignment, the SMS can progress past a compliance mechanism; it will become an active system, the values and actions will be shared.

This interaction between culture and system is very important in eliminating the gaps between written policies and practices. According to Freiwald (2013), within the organization where safety culture is fully developed, workers tend to be less unwilling to adhere to the standard operating procedure and make an active contribution at the same time in the improvement of the safety operations. On the same note, Khan, Ahmad, and Ilyas (2018) revealed that ethical leadership develops good safety culture, which then stimulates safety awareness and performance.

Leadership is very essential in building the safety culture and the SMS. Hofmann and Morgeson (2004) maintain that leaders that actively demonstrate safe practices, endorse safety programs and commit necessary resources have a large influence on the attitudes of people in organizations to safety. According to Blair (2003) again, the leadership commitment should apply not only in the strategic direction but also in entrenching safety as a non negotiable cause in the organization.

Practically, organizations, which manage to combine safety culture and the SMS successfully, are more likely to record higher safety results and reduced rates of incidents. This was shown by Yang et al. (2009), who found correlation between leadership behavior and safety culture as well as performance to be positive in the healthcare industry. Similarly, Skeepers and Mbohwa (2015) reported the same trends in the building sector, and thus this dependency does not change in terms of various industrial environments.

On top of improving safety performance, the integration is also economical. Contrary to this, reports by ExxonMobil (2018) and BHP Billiton (2020) show that organisations with high safety culture tend to record lesser direct attend and indirect accident cost incurred, eg medical bills, downtime and insurance price. Such savings are associated with being more proactive and preventive which is enabled through a combined culture and systematic approach.

To sum up, the combination of such aspects like a safety culture and the SMS develops an adaptive and resilient safety environment. As a result, employees develop a sense of ownership in their position in the safety process and are capable of acting responsibly, the SMS becomes a dynamic and responsive system. According to Leonard and Frankel (2012), the synergy can promote an effective and sustainable culture of safety.

v. Roadmap for Developing a Safety Management System (SMS)

Development of a functional Safety Management System (SMS) ought to be executed in a calculated and organized manner that is not only in line with organizational objectives but also with regulatory principles and requirements of the workforce (Roughton & Mercurio, 2002; Skeepers & Mbohwa, 2015). The next five steps offer a functional guideline of creating and maintaining a prosperous SMS.

Step 1: Leadership Commitment

The successful SMS starts with an effective commitment of leadership. Leaders need to foster a strong message on safety and devote enough resources and provide a constant example of performing safely. The promise becomes the basis of a safety culture in the organization (Hofmann & Morgeson, 2004; Leonard & Frankel, 2012).

Step 2: Conduct a Safety Training Gap Analysis

Carrying out an overall gap analysis will assist in uncovering gaps amid existing training sessions and the demanded safety skills. This is done through evaluation of current programs, employee opinions, comparison of industry standards, and prioritization of the gaps that are noticed (Yang et al., 2009).

Step 3: Develop a Comprehensive Training Plan

On the basis of the identified gaps, develop an organized training program that would cover job-related hazards and roles. This must involve onboarding, refresher trainings and emergency planning as well as recognising different types of learners and languages requirements (Afzal et al., n.d.).

Step 4: Establish a Safety Policy

The main purpose of a good safety policy is to convey the organizational promise to being safety-conscious as well as the roles and responsibilities of individuals and what core safety objectives are. The information about this policy must be told publicly in different ways, with the help of emails, posters, etc. (Khan et al., 2018).

Step 5: Identify and Assess Risks

The process of risk identification and assessment entails carrying out an inspection in the workplace, completing an audit, seeking employee opinion and using a risk matrix and hazard register. The involvement of employees in the process will maintain the integrity and accuracy of assessments that are made reflective of the actual situations in operation (Blair, 2003).

Step 6: Set Safety Goals and Objectives

Build safety goals in a measurable environment that can be guaranteed through valuation of the risks, and they should be made congruent to the organization in terms of safety vision. These objectives will ensure that the planning, implementation, and evaluation activities are driven by them (Freiwald, 2013).

Step 7: Implement Safety Programs and Procedures

Develop programs and standard operating procedures (SOPs) for critical safety tasks, incident reporting, emergency response, and the proper use of personal protective equipment (PPE). Involving employees in this process enhances adoption and compliance (Roughton & Mercurio, 2002).

Step 8: Train and Educate Employees

Ongoing training is essential for reinforcing safety expectations and enhancing employee capabilities. Programs should cover hazard recognition, emergency response, and compliance with policies, utilizing diverse formats to improve retention and accessibility (Hofmann & Morgeson, 2004).

Step 9: Monitor and Evaluate the SMS

Regular internal and external audits, employee feedback systems, and key performance indicators are critical for monitoring effectiveness. Findings should inform updates to policies and procedures, ensuring alignment with evolving risks and regulations (Leonard & Frankel, 2012).

Step 10: Foster Continuous Improvement

Promote continuous improvement by integrating employee feedback, establishing performance benchmarks, conducting periodic reviews, and encouraging innovation. These efforts will help refine the SMS and strengthen the overall safety culture (Skeepers & Mbohwa, 2015).

vi. Challenges in Developing a Safety Culture

The primary challenge in establishing a safety culture lies not in the time required, but in the effectiveness of the strategies implemented to achieve this objective. A comprehensive assessment of the organizational safety climate is crucial for identifying areas needing improvement. High-quality and accurate accident investigations are essential for uncovering trends and deficiencies within the occupational health and safety system. For these investigations to be impactful, they must accurately reflect the perceptions of top management, free from the influence of middle-level managers. Their value diminishes when accidents persist without addressing the underlying causes related to unsafe behaviors, working conditions, and prevailing organizational practices.

Best Practices for Continuous Improvement

Establishing a Continuous Improvement Mechanism

A formal workplace safety policy should be developed that incorporates regular audits (hourly, daily, weekly, monthly, and annually), sets measurable goals, and implements feedback mechanisms to facilitate ongoing enhancements.

Effective Leadership Engagement

Leadership support and active involvement are crucial. Management should integrate safety into decision-making processes and consistently endorse all safety improvement initiatives.

Enhancing Employee Involvement

Channels for employees to report incidents and share suggestions should be established, such as weekly safety questionnaires and focus group discussions, to promote dialogue and cultivate a robust safety culture.

Providing Ongoing and Effective Training

Training programs should be contemporary, tailored to actual needs, credible, and engaging to maximize participation and benefit for trainees.

Implementing a Risk Management Approach

Regular activities must be conducted to identify, assess, and manage risks, including hazard identification, risk assessments, and accident investigations to prevent recurrence and define preventive measures.

Ongoing Effort and Sustained Support

A long-term commitment and effort at all levels of organization will be needed to develop a sustainable safety culture. Safety should be a priority in every activity conducted in this operating environment- whether in daily meetings, planning, and performance reviews, the entire analysis should be clearly involved with the leadership point of view. The only way of conventionalizing safety within the routines and decision-making processes is by embracing it as one of the organizational values.

Patience and Persistence in Behavior Change

Creating a safety culture requires a change of individual behavior and organization norms, and this will take a lot of practice and tolerance. Organizations could face some resistance and challenges in the initial stages, which must be dealt with, by continuing to communicate, explaining why it is important to have good safety culture after all, and offers what is needed as the employees get accustomed to new policies and procedures.

vii. Limitations of Written Policies

Written policies are an important part of organizational safety culture, but they cannot maintain an effective safety culture in an organization alone. There is a need to implement the translation of these policies into effective practices through effective implementation and enforcement. Unless the policies are actively taken, and once devised with constant consideration, the written policies may gradually grow into simple formality, lacking their voiced intentions.

Table 2. Limitations of Written Policies in Safety Culture

Sr. No.	Limitation	Identified Case Studies
1	Lack of Real-World Application	A manufacturing firm has a written policy that requires the use of personal protective equipment (PPE) supplied in workplaces where there are hazards. Nevertheless, the employees might fail to wear PPEs without the supervisor enforcing compliance on employees hence leading to avoidable injuries.
2	Inadequate Training and Awareness	A company may have the evacuation processes in case of emergencies laid down in its safety manual, but unless the employees are trained through regular drills, there is a probability that they might panic or do something wrong leading to chaos and even loss of lives and properties in case of a real-life situation.

3	Insufficient Leadership Commitment	A construction company implements a zero-tolerance policy for dangerous behavior. If leadership does not hold everyone accountable, including senior staff, it suggests that safety is not a priority, fostering complacency regarding risky behaviors.
4	Failure to Address Root Causes	A healthcare facility has a policy for reporting workplace violence, but if it does not analyze the root causes and implement corrective measures, underlying issues like workforce shortages remain unaddressed, allowing incidents to recur.
5	Inconsistent Enforcement	A logistics company requires regular vehicle maintenance checks. If enforcement varies among managers, some vehicles may skip necessary maintenance, increasing accident risks.
6	Employee Disengagement	An office implements a formal ergonomic evaluation policy, but if it is not actively promoted and employees are not encouraged to participate, many will ignore it, reducing its effectiveness in preventing injuries.
7	Lack of Adaptability and Continuous Improvement	A chemical plant introduces rigid safety procedures for handling hazardous materials. If these procedures are not regularly reviewed and updated based on new research or past incidents, they may become outdated and ineffective in protecting workers.

Conclusion

Leadership's commitment to safety is indispensable in developing an effective safety culture. By prioritizing safety, fostering employee engagement, and leading by example, leaders can create an environment where safety is ingrained in every aspect of organizational life. Ultimately, a strong safety culture not only protects employees but also contributes to organizational success, resilience, and long-term sustainability. Leadership's role in championing safety cannot be overstated, as it sets the foundation for a safer and more prosperous future.

REFERENCES

1. Afzal, W., et al. (n.d.).
2. Blair, E. (2003). Culture & leadership: Seven key points for improved safety performance. *Professional Safety*, 48(6), 18–22.
3. EHS Today. (n.d.). *How one CEO transformed safety performance in the oil industry*. <https://www.ehstoday.com>
4. ExxonMobil. (2018). *2018 corporate citizenship report*. <https://corporate.exxonmobil.com>
5. Freiwald, D. R. (2013). *Assessing the impact of safety culture on employee behavior and safety performance* [Doctoral dissertation, University of Phoenix].
6. Hofmann, D. A., & Morgeson, F. P. (2004). The role of leadership in safety performance. In J. Barling & M. R. Frone (Eds.), *The psychology of workplace safety* (pp. 159–180). American Psychological Association.
7. Khan, M. A., Ahmad, I., & Ilyas, M. (2018). The role of ethical leadership in fostering safety culture. *International Journal of Occupational Safety and Ergonomics*, 24(1), 37–45.
8. Khan, N., Ahmad, I., & Ilyas, M. (2018). Impact of ethical leadership on organizational safety performance: The mediating role of safety culture and safety consciousness. *Ethics & Behavior*, 28(8), 628–643.
9. Leonard, M., & Frankel, A. (2012). The essential role of leadership in developing a safety culture. *BMJ Quality & Safety*, 21(1), 70–75.
10. Roughton, J., & Mercurio, J. (2002). *Developing an effective safety culture: A leadership approach*. Elsevier.
11. Skeepers, N. C., & Mbohwa, C. (2015). A study on the leadership behaviour, safety leadership and safety performance in the construction industry in South Africa. *Procedia Manufacturing*, 4, 10–16.
12. Southwest Airlines. (n.d.). The importance of a strong safety culture. *Forbes*. <https://www.forbes.com>
13. Toyota. (n.d.). Toyota's secret: The A3 report. *Harvard Business Review*. <https://hbr.org>

14. Yang, C., Wang, Y., Chang, S.-T., Guo, S. E., & Huang, M. F. (2009). A study on the leadership behavior, safety culture, and safety performance of the healthcare industry. *World Academy of Science, Engineering and Technology*, 53, 1148–1155.
15. BHP Billiton. (2020). *Sustainability report 2020*. <https://www.bhp.com>