

The Influence of Safety Communication on Safety Culture and Operational Excellence in High-Risk Industries

Arief Zulkarnain^{1*}, Puji Lestari², Kholil³

Universitas Sahid, Indonesia^{1,3}

Universitas Pembangunan Nasional Veteran Yogyakarta, Indonesia²

Email: Arief.safetyexpert@gmail.com*

ABSTRACT

Industrial sectors categorized as high-risk industries, such as oleochemical manufacturing, are increasingly exposed to multiple hazards and safety-related challenges due to process complexity, the use of hazardous materials, and the critical role of human behavior. This research aims to examine the influence of safety communication on safety culture and operational excellence in high-risk industries within PT SCM, a leading oleochemical company in Indonesia. The objective of this study is to empirically determine the extent to which safety communication serves as a determinant in shaping safety-related behavior and enhancing organizational performance in high-risk plants. Utilizing a quantitative research design, data were gathered from 421 employees through structured questionnaires and subsequently analyzed using Structural Equation Modeling (SEM). The findings indicate that safety communication exerts a statistically significant impact on the internalization of safety culture ($\beta = 0.724$, $p < 0.001$) and contributes both directly ($\beta = 0.368$) and indirectly ($\beta = 0.317$) to the attainment of operational excellence. Furthermore, the analysis reveals that direct communication approaches, such as safety briefings, safety talks, and management walk-throughs, are more effective than symbolic or non-verbal modes. The study concludes that safety communication is not merely an administrative tool but a strategic organizational mechanism, essential for fostering employee engagement, reinforcing safe behavior, and sustaining high-performance outcomes within the organization.

KEYWORDS

Employee Engagement, High-Risk Industry, Oleochemical Sector, Operational Excellence, Safety Communication, Safety Culture,



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INTRODUCTION

High-risk industries such as oleochemical, mining, oil and gas, and construction are increasingly confronted with complex safety challenges, driven by technological escalation, work intensity, and the demand for operational efficiency. In this context, safety is no longer perceived solely as a technical regulatory issue; it has evolved into a strategic component in achieving operational excellence. Awareness of occupational safety is increasingly regarded as an integral part of organizational culture, rather than the sole responsibility of a designated department. One of the key elements in building a strong safety culture is safety communication, which encompasses various mechanisms for disseminating safety information, encouraging employee participation, and engaging management in active and open communication processes (Herbert et al., 2024; Lyu et al., 2025). Notably, safety communication partially mediates the association between safety culture and safety performance (Naji et al., 2022; Tawfeeq et al., 2024). Strategic safety communication does not

merely deliver procedural messages; it also shapes perceptions, modifies attitudes, and fosters emotional engagement among employees in safety practices (Codier & Codier, 2015; Elvik, 2016). Therefore, a comprehensive understanding of the role of safety communication as a catalyst for establishing a safe work culture is becoming increasingly crucial in today's complex and risk-laden industrial environments.

The concept of safety culture in industrial organizations has undergone a paradigm shift—from an initial emphasis on procedural compliance to a collective value system that demands active participation across all organizational levels. Safety culture is now seen as a combination of psychological, behavioral, and structural dimensions integrated within the organizational framework. There is significant influence from management commitment, safety communication, leadership, and safety programs on the development of safety culture within the organization (Imandiya et al., 2024). According to Silaen et al. (2018), the successful implementation of safety culture is influenced by managerial commitment, continuous training, incident reporting systems, and sustained safety communication patterns. Silaen et al. also mention behavioral factors as pivotal points in shaping the safety environment. The active involvement of employees in discussions and incident reporting significantly correlates with increased safety awareness in the workplace. On the other hand, Wonua et al. (2023) emphasize that workers' perceptions of safety values are greatly affected by managerial behavior and the quality of interdepartmental communication, while Jahangiri et al. (2021) highlight the importance of safety culture maturity in enhancing an organization's adaptive capacity in high-risk operational dynamics. Collectively, the literature demonstrates that safety communication occupies a central role in reinforcing sustainable safety culture structures. Safety communication serves as a pivotal mechanism for enhancing workplace safety culture by engaging all employees, including top management.

From a strategic standpoint, safety communication is also viewed as a fundamental enabler of operational excellence. According to Zara et al. (2023), organizations can significantly improve work performance and promote positive working environments through effective administration of safety communication strategies aligned with Occupational Safety and Health Administration (OSHA) practices. Well-designed communication functions as a bridge between safety strategy and daily operational execution, reinforcing the synergy between efficiency and workplace safety. This aligns with the findings of Liu et al. (2024), who emphasize that effective communication practices play a vital role in maintaining organizational resilience, particularly in major infrastructure. High-risk operations are so complex that they require a mix of physical, chemical, and procedural safety tools. Using technology for monitoring and automated systems supports proactive safety culture, preventing negative impacts at the workplace. Furthermore, leadership communication practices are important as a key factor in shaping safety culture within organizations; openness among management and employees directly correlates with the establishment of a robust safety culture. Similarly, Dasgupta et al. (2024) emphasize that engineering management plays a pivotal role in formulating safety procedures, which, when supported by robust communication strategies, significantly enhance the operational excellence of high-risk sectors such as chemical industries.

Effective communication in safety management plays a crucial role in influencing employee behavior and encouraging adherence to safe work practices within high-risk

industries. As noted by Wang et al. (2022), authoritarian leadership is inversely related to employee safety compliance and participation, a relationship explained through the lens of social exchange theory. This suggests that when communication is ineffective or overly authoritarian, employees are less inclined to engage in safety-related behaviors due to a perceived lack of mutual trust and reciprocity with their leaders. A well-structured safety communication system, when supported by effective teamwork, not only influences individual behavior but also strengthens the broader organizational safety culture. Quach et al. (2021) emphasize that organizational readiness for change enhances safety climate—a process closely tied to the quality of communication between leadership and frontline employees. Through participatory communication approaches, organizations can leverage team dynamics to foster open dialogue aimed at continuous safety improvements.

Similarly, Vikan et al. (2023) found that the integration of teamwork with clear communication strategies plays a pivotal role in shaping a strong safety culture. Their findings reveal that active, collective participation in safety-related conversations correlates with a reduction in adverse events in healthcare environments. These insights highlight that positive safety outcomes often stem from how well communication and collaboration are managed within the organization. Therefore, a strategic safety communication approach must incorporate two-way interaction, feedback mechanisms, and emotional engagement to truly transform behavior in a sustainable manner.

Moreover, the effectiveness of safety communication depends on the behavior of workers; attitude and personal perception influence how they think and act regarding safety and ultimately affect the shaping of safety culture in the workplace. Organizational structure significantly influences communication effectiveness; supportive organizational cultures and transformational leadership improve employee engagement in safety programs. Thus, effective safety communication strategies must comprehensively consider individual, structural, and environmental elements. The organization must set up an appropriate communication model, as a lack of a comprehensive system can lead to miscommunication and fail to prevent incidents (Sadia et al., 2016).

In dynamic organizational settings operating under pressure for high efficiency, safety communication must also function effectively during crisis situations. Communication strategies should be integrated into comprehensive safety management systems, including communication training, incentive mechanisms, and continuous evaluation frameworks (Forsthoffer, 2011). With such a holistic approach, safety communication can serve as a strategic tool not only for accident prevention but also for enhancing organizational resilience and competitiveness over the long term (Haas & Yorio, 2021).

PT SCM, an oleochemical manufacturer in the high-risk industries, faces the highest operational risks stemming from chemical exposure, chemical processes, chemical storage, and physical activities—making the role of safety communication even more critical. This organization, categorized as a high-risk industrial operation, presents an ideal case for exploring the intersection of safety communication and operational excellence. The company deals with hazardous substances such as methanol, sodium methylate, and hydrogen in processes like esterification, hydrogenation, and transesterification. These substances are volatile, flammable, and toxic, and their mismanagement has the potential to cause fatalities, explosions, fires, or long-term health hazards. Moreover, incident reports at PT SCM from

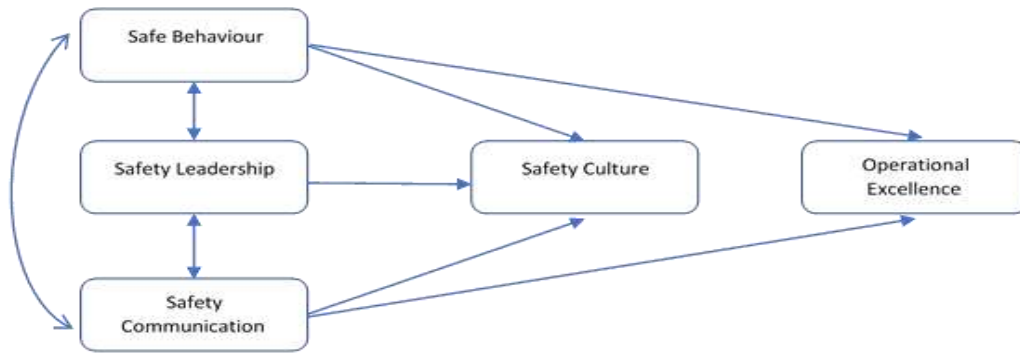
2019 to 2024 indicate that approximately 73% of workplace accidents are attributed to unsafe acts rather than unsafe conditions. During this period, there was one major fire and two fatalities. This statistic underscores the human factor—primarily influenced by behavior, communication, and leadership—as the dominant contributor to operational risks.

PT SCM faces two key points in fostering safety culture and preventing incidents. First, ineffective safety communication by leaders hampers the reinforcement of safe behavior, as critical safety procedures are not clearly conveyed to employees. Second, operating in a high-risk environment with chemical, fire, pressure, and explosion hazards requires concern for safety culture to prevent catastrophic events and achieve operational excellence. Based on the discussion, the objective of this study aims to determine how safety communication influences the development of safety culture and to explore effective communication strategies at PT SCM.

METHOD

This study used a post-positivism paradigm and employed a quantitative approach using Structural Equation Modeling (SEM) to examine the effects of safety communication on safety culture and operational excellence. Empirical data were collected from the target population using stratified random sampling. Respondents were selected within each stratum, beginning with the choice of areas or divisions (stratum), then selecting respondents or employees based on the division chosen according to risk. Data were collected from 421 employees of PT SCM, an oleochemical manufacturing company in Indonesia, through a structured questionnaire based on validated instruments. The questionnaire was administered using a Likert scale with five levels: 1 = Totally Doesn't Agree, 2 = Doesn't Agree, 3 = Neutral, 4 = Agreed, and 5 = Totally Agreed.

Data analysis was conducted using SEM-LISREL. Reliability and validity were assessed via Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Convergent validity ensured that multiple indicators of the same construct were highly correlated, typically assessed through factor loadings. Loadings above 0.50 were considered acceptable, while values above 0.70 were ideal. Statistical significance was confirmed if $t > t_{table}$ or $p < .05$. Discriminant validity, by contrast, assessed whether indicators distinctly measured different constructs. It was validated when an indicator loaded more highly on its own construct than on others (cross-loading criterion), and when the Average Variance Extracted (AVE) for each construct exceeded 0.50. Reliability tests assessed how consistently and accurately an instrument measured a construct. Cronbach's alpha provided a lower-bound estimate of reliability, while composite reliability offered a more accurate assessment. Both indicators generally needed to exceed 0.70, though a value above 0.60 could be acceptable in certain cases.

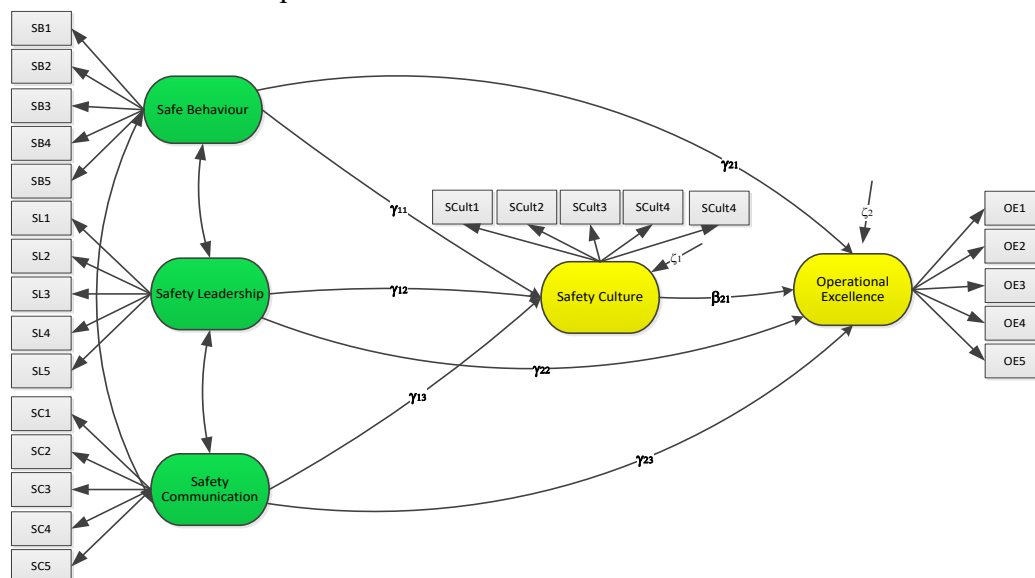


Picture 1: Model of Study
Source: Analysis by researcher, 2025

RESULT AND DISCUSSION

The results of the quantitative analysis using Structural Equation Modeling (SEM) clearly demonstrate that safety communication plays a pivotal role in shaping safety culture, which in turn significantly contributes to achieving operational excellence in high-risk industrial environments.

The structural model and equal mode of the research are shown below:



Picture 2: Structural and Measurement Model
Source: Analysis by researcher, 2025

With equal model is below;

$$\text{Model 1 : } \text{SafetyCulture} = \gamma_{11}\text{Safety Behaviour} + \gamma_{12}\text{Safety Leadership} + \gamma_{13}\text{Safety Communicatio} + \zeta_1$$

$$\text{Model 2 : } \text{Operational excellence} = \beta_{21} \text{ SafetyCulute} + \gamma_{21}\text{Safety Behaviour} + \gamma_{22}\text{Safety Leadership} + \gamma_{23}\text{afety Communicatio} + \zeta_2$$

Table 1, Respondent's Perception to Safety Communication

Questionnaire	STS/TD		TS/D		RR/Neutral		S/A		SS/TA		Average
	N	%	N	%	N	%	N	%	N	%	
Safety signs are adequately available in the workplace.	3	0,7	11	2,6	29	6,9	231	54,9	147	34,9	4,21

Workplace safety signage is easily understood by all employees, thereby enhancing effective communication of hazards and safety instructions.	2	0,5	3	0,7	19	4,5	229	54,4	168	39,9	4,33
Safety talks serve as one of the most effective communication channels for disseminating safety messages to all employees across the organization.	1	0,2	1	0,2	31	7,4	197	46,8	191	45,4	4,37
The safety bulletin board serves as an effective communication tool for disseminating occupational safety messages to the entire workforce.	2	0,5	3	0,7	66	15,7	209	49,6	141	33,5	4,15
P2K3 Meetings are one of the most effective safety communication forums for reaching all employees.	0	0,0	1	0,2	44	10,5	216	51,3	160	38,0	4,27
I maintain a positive perception that the company fosters an open communication environment that encourages employees to report incidents or unsafe behaviors without fear of sanctions.	1	0,2	3	0,7	28	6,7	223	53,0	166	39,4	4,31
Safety training can enhance individual motivation in the implementation of workplace accident prevention programs.	0	0,0	0	0,0	12	2,9	196	46,6	213	50,6	4,48
Safety briefings are conducted regularly as an effort to enhance employees' empathy in the implementation of workplace safety programs.	0	0,0	0	0,0	14	3,3	189	44,9	218	51,8	4,48
I clearly understand the occupational safety messages delivered by my supervisor, which reflects the effectiveness of leadership-driven safety communication within the organization.	0	0,0	0	0,0	14	3,3	208	49,4	199	47,3	4,44
I have learned about the importance of workplace safety by observing the safe behaviors of my colleagues.	0	0,0	4	1,0	21	5,0	211	50,1	185	43,9	4,37
I maintain a positive belief that effective safety communication plays a vital role in shaping awareness of safe behavior in the workplace.	0	0,0	0	0,0	8	1,9	216	51,3	197	46,8	4,45
Effective safety communication can foster a sense of peace and well-being, contributing to the creation of a safe workplace.	0	0,0	0	0,0	9	2,1	206	48,9	206	48,9	4,47

Source: Analyzed by Researcher. 2025. (TD= Totally Disagree, D=Disagree, N = Neutral, A=Agree, TA=Totally Agree).

Table 2. Categorization of numbers

Average	Categorize
1-1.80	Very Poor
1.81-2.60	Poor
2.61-3.40	Average
3.41-4.20	Good
4.21-5.00	Excellent

Source: Analyzed by Researcher,2025

Based on table 1: Result of Safety Communication and Table 2: Categorization of Number, the average response for safety communication is 4.36, which is categorized as Excellent. This indicates that safety communication in the workplace has been implemented effectively.

The types of communication methods applied at the workplace are varied. According to Lasswell's communication model, the communication process involves sequential elements: Who → Says What → In Which Channel → To Whom → With What Effect.

Referring to the results shown in the table, the aspect that requires further attention is the Media/ Channel element (in which channel), with scores ranging between 4.15 and 4.48. The types of communication channels evaluated in this study include Safety Signs (4.21),

Bulletin Boards (4.15), Safety Committee Meetings (4.27), Safety Briefings (4.48), and Safety Talks (4.37).

The result reflected that direct communication media – face to face communication (such as safety briefings and safety talks) are perceived to be more effective among employees compared to indirect communication methods – by symbols -nonverbal (such as safety signs and bulletin boards). Keyton emphasizes that organizational communication is a complex and continuous process involving all members, where meaning is created and shared through various communication forms, including direct and indirect way (Keyton, 2011.). In line with Keyton theory, on Symbolic Performance Perspective: rituals like daily safety briefings, safety talk, safety toolbox, and consistent use of safety emphasize the significance of safety activities, making it an integral and visible part of organizational life.

Below is shown the quantitative result by SEM, there is significance influence (direct and indirect) of Safety Communication to build safety culture and achieve operational excellence at PT SCM.

(1) The Equation model of Safety Culture (SCL):

$$SCL = 0.106^{*}SB + 0.129^{*}SL + 0.724^{*}SCM, \text{ Errorvar.} = 0.128, R^2 = 0.872$$

	Standerr	(0.0605)	(0.0681)	(0.0757)	(0.0173)
Z-values	1.759	1.897	9.566	7.364	
P-values	0.079	0.058	0.000	0.000	

Independent Variable	Direct – Influence to SCL- Safety Culture	Z value	Error	Absolut Z $\geq 1,96$	P Value $\leq 0,05$	Conclusion
SCM – Safety Communication	0,724	9,566	0,0757	$\geq 1,96$	$0,000 \leq 0,05$	Significance

Hypotheses 1: There is a significant influence of Safety Communication to develop Safety Culture, an according to the Z value ($9.5667 \geq Z$ table 1.96) or p value $0.000 > 0.05$, the direct influence of Safety Communication to develop Safety culture (0.724) is statistically significant. (Accepted H1).

(2) The Equation model of Operational Excellence (OE):

$$OE = 0.438^{*}SCL + 0.0622^{*}SB + 0.122^{*}SL + 0.368^{*}SCM, \text{ Errorvar.} = 0.0867, R^2 = 0.913$$

	Standerr	(0.0774)	(0.0553)	(0.0641)	(0.0869)	(0.0134)
Z-values	5.656	1.125	1.897	4.233	6.463	
P-values	0.000	0.261	0.058	0.000	0.000	

Independent Variable	Direct Influence to OE – Operational Excellence	Z value	Error	Absolut Z $\geq 1,96$	P Value $\leq 0,05$	Conclusion
SCM – Safety Communication	0,368	4,233	0,0869	$\geq 1,96$	$0,000 \leq 0,05$	Significance

Hypotheses 2: There is a significant influence of Safety Communication to achieve

Operational Excellence, according to the Z value ($4.233 \geq Z$ table 1.96) or p value $0.000 < 0.05$, the direct influence of Safety Communication to achieve Operational Excellence (0.368) is statistically significant. (Accepted H1).

	SB	SL	SCM
SCL	---	---	---
OE	0.047 (0.027) 1.720	0.057 (0.032) 1.759	0.317 (0.063) 5.067

Independent Variable	Indirect influence to OE through SCL	Z	Error	Absolut Z $\geq 1,96$	Conclusion
SCM – Safety Communication	0,317	5,067	0,063	$\geq 1,96$	Significance

According to the Z value ($5.067 > Z$ table 1.96), the indirect influence of Safety Communication on achieving Operational Excellence (0.317) is statistically significant. Those decription aligned with the SEM (Structural Equation Model) output indicates that safety communication has a significant direct effect on safety culture ($\beta = 0.724$, $Z = 9.566$, $p < 0.001$), as well as both direct and mediated effects on operational excellence ($\beta = 0.368$ direct; $\beta = 0.317$ indirect through safety culture, $p < 0.001$). These findings underscore that safety communication is not merely a technical function to disseminate procedures, but rather a strategic driver of cultural transformation and performance improvement.

From a theoretical standpoint, the findings are consistent with Joann Keyton's (2011) organizational communication theory, which conceptualizes communication as the medium through which culture is enacted and sustained. In the workplace setting of PT SCM, safety communication is manifested through daily safety briefings, safety committee meeting, visual cues, management-led walk-throughs (Gemba Walks, BBS-Observations) and open forums for incident reporting and feedback. These practices reinforce shared meanings, bounding each other's and generate a sense of psychological ownership among workers.

Albert Bandura's Social Cognitive Theory (Bandura, 1986) further enriches this understanding by explaining how behavior is shaped through modeling, reinforcement, and self-efficacy. In the case of safety communication, leaders' commitment and consistent messaging act as observational learning cues, while emotional reinforcement builds workers' confidence in adhering to safety norms. The theory also supports the concept of reciprocal determinism, wherein the communication environment, individual cognition, and safe behaviors interact dynamically to cultivate a resilient safety culture. Moreover, the Heart Communication Theory (Lestari, 2023) introduces an affective and cognitive dimension to organizational communication, positing that genuine, empathetic communication fosters trust, positive thinking and internal motivation. When workers feel heard, involved, and emotionally connected to safety messages, they are more likely to internalize and consistently exhibit safe behaviors, ultimately enhancing operational performance. Personal attitude and values that they have will influence how they are doing the activity with safety concerned. It's about thinking and feeling that emphasize their behavior at workplace then could be safe or unsafe.

Empirically, the study confirms that safety culture mediates the relationship between safety communication and operational excellence. With a coefficient of determination (R^2) reaching 87.2% for safety culture and 91.3% for operational excellence, the model proves robust. It highlights that a high level of operational excellence cannot be achieved without a mature safety culture—and such a culture is largely influenced by the quality and consistency of communication. In essence, safety communication is not merely about delivering information; it is about creating shared meaning, establishing trust, and embedding values into the fabric of organizational culture. It serves as a bridge between policy and practice, leadership intent and frontline execution. Organizations aiming for operational excellence must therefore invest not only in systems and technologies but also in cultivating communication competencies at every organizational level.

Empirical findings from previous studies indicate that safety communication plays a pivotal role in shaping an organizational safety culture. The communication process is not only a tool for transmitting information but also functions as a medium through which safety values are shared and internalized among employees. This process contributes significantly to enhancing safety awareness at PT SCM. Effective communication has also been shown to mediate the relationship between established safety standards and actual safe work practices, thereby reducing the likelihood of workplace injuries. Moreover, communication facilitates active employee involvement and engagement in organizational safety programs, which is essential for the successful implementation of safety initiatives.

Importantly, safety communication should not be viewed merely as a technical or instrumental activity; rather, it should be regarded as a strategic approach to developing and sustaining a safety culture. In support of this perspective, other studies have emphasized that management commitment, employee competency, and intensive communication are critical factors that influence the development of a positive safety culture. These factors work synergistically when embedded within a structured communication system that promotes two-way interactions between management and employees. Such a system encourages open dialogue, mutual trust, and shared responsibility, all of which are essential for reinforcing safety values and fostering long-term cultural change within organizations.

Based on empirical research and previous study, Safety communication is part of variable or critical component to build safety culture at workplace to achieve operational excellence. Safety communication plays a pivotal role in shaping organizational safety culture. It is not merely a means of information transfer but a strategic mechanism for internalizing safety values, enhancing awareness, and promoting employee engagement in safety programs. Safety communication produces the methods and processes used to deliver information related to safety at the organization (Naji, 2022). Safety communication is an important factor that develop a robust safety culture, especially in high-industries A effective safety culture, fostered by effective communication, leads to improved safety culture and prevent incident at workplace (Naji, 2022). Safety culture is the shared set of beliefs, values, attitudes, and norms regarding safety within an organization. Effective communication ensures that all employees understand the organization's commitment to safety and their individual responsibilities in maintaining a safe working environment. By promoting open dialogue, feedback, and engagement helps to create a culture of shared responsibility and operational excellence.

Empirical research consistently demonstrates a strong positive correlation between safety communication and safety culture, that organizations with effective safety communication in daily operations tend to build robust safety culture, increase safety awareness and engagement and commitment to safety at all levels of the organization (Naji, 2022). Moreover, when supported by management commitment and employee competence, a structured two-way communication system fosters trust and shared responsibility, which are essential for cultural change. The findings of this study confirm and extend existing theoretical perspectives on the strategic role of safety communication in shaping safety culture and enhancing operational excellence.

The Structural Equation Model (SEM) analysis demonstrates that safety communication has a significant direct effect on safety culture ($\beta = 0.724$, $p < 0.001$) and contributes to operational excellence both directly ($\beta = 0.368$) and indirectly through safety culture ($\beta = 0.317$, $p < 0.001$).

These results align with Keyton's (2011) Organizational Communication Theory, which views communication as the process through which culture is enacted and sustained. Within PT SCM, communication practices—such as daily briefings, Gemba walks, and open feedback forums—serve not only to disseminate information but also to embed shared meanings and foster psychological ownership. Bandura's (1986) Social Cognitive Theory further contextualizes these findings by explaining how communication influences behavior through modeling, reinforcement, and self-efficacy. Consistent safety messaging from leadership acts as a form of observational learning, reinforcing safe behavior norms across the organization.

Additionally, Lestari's (2023) Heart Communication Theory highlights the emotional dimension of communication, how to involve the thinking, and how to manage the waste of heart to cultivate the empathic and sympathetic behavior. Empathetic and authentic dialogue strengthens trust and internal motivation, which are crucial for safety behavior internalization and sustained performance improvement. With R^2 values of 87.2% for safety culture and 91.3% for operational excellence, the model underscores that mature safety culture—driven by strategic communication—is essential for achieving high organizational performance. Thus, safety communication is not merely operational, but a foundational mechanism for cultural transformation.

This study offers a novel contribution by integrating the affective dimension of Heart Communication Theory (Lestari, 2023) into safety communication. It contextualizes safety communication within real-world practices at PT SCM, such as Gemba Walks and behavioral observations, enhancing its practical relevance. With exceptionally high R square ($R^2 = 87.2\%$ for safety culture; $R^2 = 91.3\%$ for operational excellence), the model serves as a robust empirical benchmark, bridging theory and practice in organizational safety communication.

CONCLUSION

This study demonstrates that safety communication plays a pivotal role in enhancing both safety culture and operational excellence, with significant direct and mediated effects evidenced by robust statistical results ($\beta = 0.724$, $Z = 9.566$, $p < 0.001$; $\beta = 0.368$ direct, $\beta = 0.317$ indirect through safety culture, $p < 0.001$). The findings emphasize the importance of treating communication as a strategic asset, integral to fostering cultural resilience and

achieving operational success, rather than merely a support function. Furthermore, the effectiveness of safety initiatives hinges on the choice of communication channels, underscoring the need for organizations to select mediums that optimally transmit safety-related messages to all stakeholders. Future research is recommended to explore how emerging digital communication technologies and tailored channel selection can further improve safety outcomes and organizational resilience in high-risk industries.

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