

Systematic Literature Review of Lean Communication Process from Sender to Receiver

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Abstract: This study systematically reviews the lean communication process from sender to receiver, focusing on critical factors including lean communicators' skills, lean information, lean messaging, lean channels, and lean feedback. The findings indicate that communicators' skills particularly social intelligence skills, comprehension skills, and expression skills play a pivotal role in facilitating lean communication. Additionally, lean communication leverages customized information from reliable sources to ensure relevance and accuracy. In the context of lean messaging, integrating elements such as novelty of the message, security of the message, relevance, and conciseness enhances the overall effectiveness of communication. Moreover, lean channels, characterized by fast and direct routes, mobile based options, visual tools, and wide reaching capabilities, significantly contribute to creating streamlined communication. Finally, lean feedback, defined by quickness, clarity, and relevance, serves as a crucial component in maintaining an efficient lean communication process. Together, these features establish a robust framework for optimizing communication processes within organizations.

Keywords: *Lean Communication, Communicator's Skills, Lean Information, Lean Message, Lean Channel, Lean Feedback.*

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I. INTRODUCTION

Today, we live in a multilingual and culturally diverse world (Costeleanu, 2021). The development of effective organizational communication is one of the key elements and success factors for organizations (Lukas, 2021). "Lean communication," derived from lean thinking principles, seeks to eliminate complications and improve internal and external organizational communication efficiency (Costeleanu, 2021). This concept is rooted in communication theory and contributes to understanding the formation of publics, public interests, and public representation by emphasizing clarity, accuracy, and timeliness in message delivery. Lean

communication fundamentally improves organizational processes by creating a clear and concise communication structure, reducing obstacles, increasing transparency, and enabling the flow of fast and accurate information (Kusel & Coetzee, 2024). It directly impacts organizational productivity and efficiency by streamlining processes to align communication efforts with organizational goals (Redeker, Kessler, & Kipper, 2019). One significant challenge in traditional communication is the prevalence of unnecessary and unreliable information, which leads to reduced productivity and increased ambiguity in communication processes (Emami, Bayat, Tafazolli, & Quddus, 2024; Iliev & Petkov, 2020). Lean communication's focus on efficient

messaging addresses this challenge by eliminating irrelevant details and ensuring messages are purposeful, direct, and timely (Kusel & Coetzee, 2024; Mbelu, 2020).

Communication skills, which include the ability to solve problems quickly, comprehend and express ideas, build trust, and demonstrate social intelligence, can help reduce misunderstandings and increase trust between colleagues and managers, fostering lean and effective communication (Hardjati & Febrianita, 2019; Costigan & Brink, 2019; Vladutescu, 2020; Rani, 2016). On the other hand, the use of customized information from reliable sources, safety, compactness, and relevant messages is an important element of lean communication, which has a significant effect on reducing ambiguity and increasing accuracy in conveying information and lean communication (Kusel & Coetzee, 2024; Redeker, Kessler, & Kipper, 2019). Another vital component of lean communication is the use of appropriate communication channels, which can facilitate the transmission of messages by reducing noise, using fast and direct routes, and providing valuable feedback to improve communication processes (Kusel & Coetzee, 2024; Adu-Oppong & Birikorang, 2014). Currently, organizations are increasingly seeking to improve efficiency, productivity, and performance, which requires an effective and lean communication system (Redeker, Kessler, & Kipper, 2019; Kusel & Coetzee, 2024). Lean communication, which focuses on removing complexities and optimizing information transmission processes, helps organizations achieve their goals more efficiently (Khoei, Kaul, Lewis, Daniel, & Sharma, 2017; Redeker, Kessler, & Kipper, 2019).

Lean communication is important because it can help managers and employees make better and faster decisions by providing accurate and timely information (Kucheryavenko, Gayvoronskaya, Chistnikova, & Vinnik, 2019). Therefore, one of the vital and fundamental needs of today's organizations, especially in countries with complex structures and limited resources, is to create clear and unambiguous communication. Lean communication can help reduce misunderstandings, improve internal interactions, and increase trust between the workforce of different departments of an organization (Redeker, Kessler, & Kipper, 2019; Kucheryavenko, Gayvoronskaya, Chistnikova, & Vinnik, 2019; Walbeck, 2019). Another importance of lean communication is to improve the satisfaction of customers and audiences of the organization, because in any environment, vague and insufficient communication leads to a decrease in trust. Therefore, lean communication can improve the satisfaction of customers and audiences and institutionalize trust (Redeker, Kessler, & Kipper, 2019; Kucheryavenko, Gayvoronskaya, Chistnikova, & Vinnik, 2019; Hardjati & Febrianita, 2019). Therefore, in public and large organizations, such as government departments or services organizations, where the amount of information is too high and there are often structural and bureaucratic complications, the use of lean communication can significantly improve information transmission and reduce delays caused by communication inefficiencies (Redeker, Kessler, & Kipper, 2019; Kusel & Coetzee, 2024).

➤ *The Purpose of This Study is to Systematically Examine Lean Communication Processes by Identifying and Analyzing the Key Components Contributing to Effective Communication. Specifically, the Study Aims to:*

- Explore the theoretical foundations connecting lean communication to effective, practical and broader communication
- Investigate how lean communication elements such as communicator skills, information, messaging, channels, and feedback support better communication.
- Provide actionable insights for policymakers and stakeholders to enhance lean communication process in the organizations.

Prior research highlights the importance of lean communication in addressing inefficiencies within organizational systems. Studies emphasize that lean communication integrates the principles of clarity, simplicity, and purposefulness to reduce noise and enhance transparency (Kusel & Coetzee, 2024; Cong, Sriram, & Ying, 2011). The prior review also suggests that while traditional communication models often focus on message transmission, but lean communication redefines this by emphasizing recipient-focused strategies. This shift ensures that, information is not only transmitted but effectively received and understood (Vladutescu, 2020).

The purpose of this study is to systematically examine the lean communication process by identifying and analyzing its key components, which include communicators' skills, lean information, lean messaging, lean channels, and lean feedback. This work is explicitly connected to communication theory as it builds on the principles of clarity, simplicity, and purposefulness in message delivery, aiming to reduce noise and enhance transparency in organizational communication. By focusing on recipient-focused strategies, the study seeks to optimize the transmitting of information, ensuring that messages are not only transmitted but also effectively received and understood, thereby improving overall communication efficiency within organizations. According to Shannon and Weaver's model which emphasizes the process of transmitting information from a sender to a receiver, which is central to lean communication. Lean communication aims to streamline this process by eliminating noise, ensuring clarity, and enhancing the accuracy of message delivery. The Shannon and Weaver's model breaks down communication into key components: sender, message, channel, receiver, and noise. These components align with the key factors identified in the study (communicators' skills, lean information, lean messaging, lean channels, and lean feedback). This makes it easy to map the study's findings onto the model. One of the main goals of lean communication is to reduce "noise" (unnecessary or irrelevant information) in the communication process. Shannon and Weaver's model explicitly includes noise as a factor that can disrupt communication, making it a natural fit for analyzing how lean communication minimizes noise. While the original Shannon and Weaver model is linear, it can be extended to include feedback, which is a critical component of lean communication. Feedback ensures that the

message has been received and understood correctly, aligning with the study's emphasis on lean feedback as a crucial element.

In the context of lean communication, the sender's skills (such as problem-solving, comprehension, expression, trust-building, and social intelligence) are crucial for encoding the message effectively. These skills ensure that the message is clear, concise, and targeted to the receiver's needs, reducing the likelihood of misunderstandings. The message in Shannon and Weaver's model corresponds to the lean information and lean messaging components in the study. Lean communication emphasizes the importance of concise, relevant, and secure messages that are free from unnecessary details. This aligns with the model's focus on ensuring that the message is transmitted accurately and efficiently. The channel in Shannon and Weaver's model refers to the medium through which the message is transmitted. In lean communication, the choice of lean channels (fast and direct routes, visual tools, mobile-based options, etc.) is critical for ensuring that the message reaches the receiver quickly and without distortion.

The study's focus on optimizing channels aligns with the model's emphasis on selecting the most effective medium for communication. Finally, the receiver in Shannon and Weaver's model is the target of the message. In lean communication, the receiver's ability to comprehend the

message and provide feedback is crucial. Lean feedback, characterized by speed, clarity, and relevance, ensures that the message has been understood correctly and allows for quick corrections if necessary. This feedback loop is essential for maintaining the efficiency of the communication process. Noise in Shannon and Weaver's model refers to anything that disrupts the communication process. In lean communication, noise is minimized by eliminating unnecessary information, ensuring that messages are concise and relevant. The study's focus on reducing ambiguity and improving transparency aligns with the model's emphasis on reducing noise to enhance communication effectiveness. The study's findings can be mapped onto Shannon and Weaver's model to illustrate how each component of lean communication (communicators' skills, lean information, lean messaging, lean channels, and lean feedback) contributes to reducing noise and improving the efficiency of message transmission. A visual representation of the communication process using Shannon and Weaver's model, with lean communication components overlaid, could help illustrate how lean communication optimizes each stage of the process. For example, the sender's skills ensure effective encoding, lean information and messaging ensure a clear and concise message, lean channels ensure efficient transmission, and lean feedback ensures accurate decoding and comprehension.

The table below lists various definitions from different authors:

Table 1 Overview of Selected LC Definition (Anwar, Rehman, Wang, & Hashmani, 2019)

Definition of Lean Communication	Source
LC is a unique perspective on lean thinking to transfer the accurate and concise information, to the purpose of reduce noise and increase transparency of messages .	(Kusel & Coetzee, 2024)
LC is an approach that increases the productivity of organizational communication by eliminating unnecessary details and emphasizing accuracy, simplicity, and timing.	(Redeker, Kessler, & Kipper, 2019)
LC a process that helps to transfer messages quickly and efficiently by using simple channels and tools and reduces information overload.	(Cong , Sriram , & Ying , 2011)
LC is Focusing on clear and understandable messages, LC is an effort in Lean thinking, as an improvement approach to improve quick and accurate decision-making in organizations.	(Huizing, 2014)
LC uses precise and effective tools to reach the audience without complexity with minimal disruption.	(Mbelu, 2020)
LC is defined as the ability and skill of one party to express a message in a clear and simple language with a single meaning, and for the audience, convenience , clear and unified understanding of the message.	(Rani, 2016)

II. RESEARCH METHODOLOGY

“Systematic literature reviews typically have three stages, which include 'planning,' 'conducting,' and 'reporting' the review". Researchers have used SLR in different method and a variety of domains. This research followed the guidelines of authors who proposed three main phases. In other words, this systematic literature review follows the '3-stage review step,' which is mentioned in Table 2 (Anwar, Rehman, Wang, & Hashmani, 2019).

Table 2 SLR Activities Plan (Anwar, Rehman, Wang, & Hashmani, 2019)

Phase	Steps	Activates
A	Planning the Review	A: Defining “Research Questions” B: Identifying “Data Sources” C: Defining “inclusion” and “ exclusion” criteria
B	Conducting the Review	A: Defining “ quality criteria for study selection” B: Conducting “primary study selection” C: Data “ extraction” and “synthesis”
C	Reporting the Review	A: Documenting the “extracted result”

➤ Phase A: planning the review

• Research Question:

This study addressed the following one research question as below: Q1: What is the Lean Communication process in the organization? Aim: Identification of Lean Communication components, frequently reported in relevant researches.

• Search String:

The search string used in this SLR is given as below: ("lean communication" OR "effective communication" OR "Technical Communication" OR "Professional Communication" OR "Targeted Communication" OR "Clear Communication" OR "Intimate Communication", "directional Communication")

• Inclusion and Exclusion Criteria:

The inclusion criteria for the studies is given below items: (1) Studies should have been published between January 2012 and December 2023 (including these dates). (2) Studies should be related to communication. (3) Studies should discuss the importance of Lean Communication in organizations. (4) The main objective of the study should have been investigating and exploring LC factors or LC components.

Studies were excluded based on the following criteria: (1) research and studies published in languages other than English; (2) conference papers, keynotes, lab reports, tutorial summaries, and university presentations; (3) duplicated studies were detected and removed; and (4) studies that were not relevant to LC in the context of organizations were removed.

Table 3 Data Sources Publication Venues

Data Source 2012 - 2024	Publication Count	URL
Emerald insight	145	www.emeraldinsight.com
Science Direct	220	www.sciencedirect.com
Wiley Library	45	www.onlinelibrary.wiley.com
Ceeol	170	www.ceeol.com
ProQuest	310	www.proquest.com
Odad	75	www.odad.org
Gigalib	38	www.gigalib.org
Google Scholar	195	www.scholar.google.com
Total	1198	

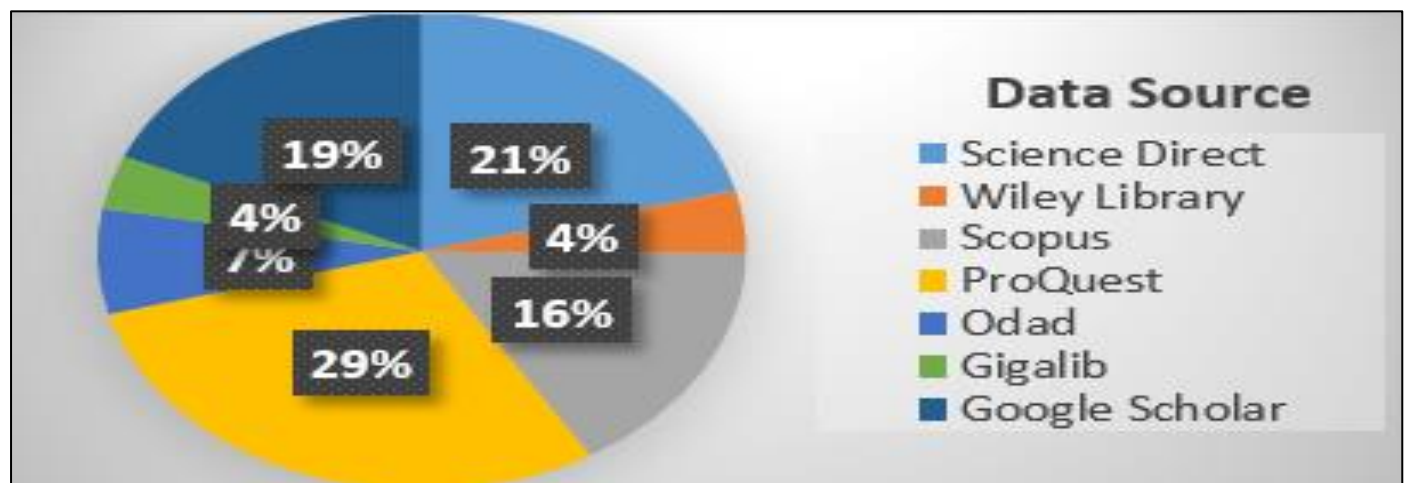


Fig 1 Selected Studies Publication Venues

➤ Phase B: Conducting the Review

Studies as identified in "Phase 1" were refined on the basis of the "title", "abstract" and "keywords". Further studies were narrowed on the basis of "introduction", "conclusion" and "full text".

• Validity Process:

The key doubts to the "validity process" rely upon the "research paper selection", "inaccurate data extraction", "incorrect classification of studies", "research methods and types" and "potential author bias". To ensure that study selection process and inaccuracy in data extraction were

unbiased, authors followed as scientist researcher's recommendations (Anwar et al., 2019). For the current study three authors were involved in the "classification" of each paper. To overcome difference of opinion, the matter was discussed until fully understanding was developed between authors.

• Conducting "Primary Study Selection":

The search was screened from 2012 up to 2024 and using an advanced search in the internet such as Scopus, Emerald Insight, Wiley Online Library, Academic Search Complete, ACM and Science Direct.

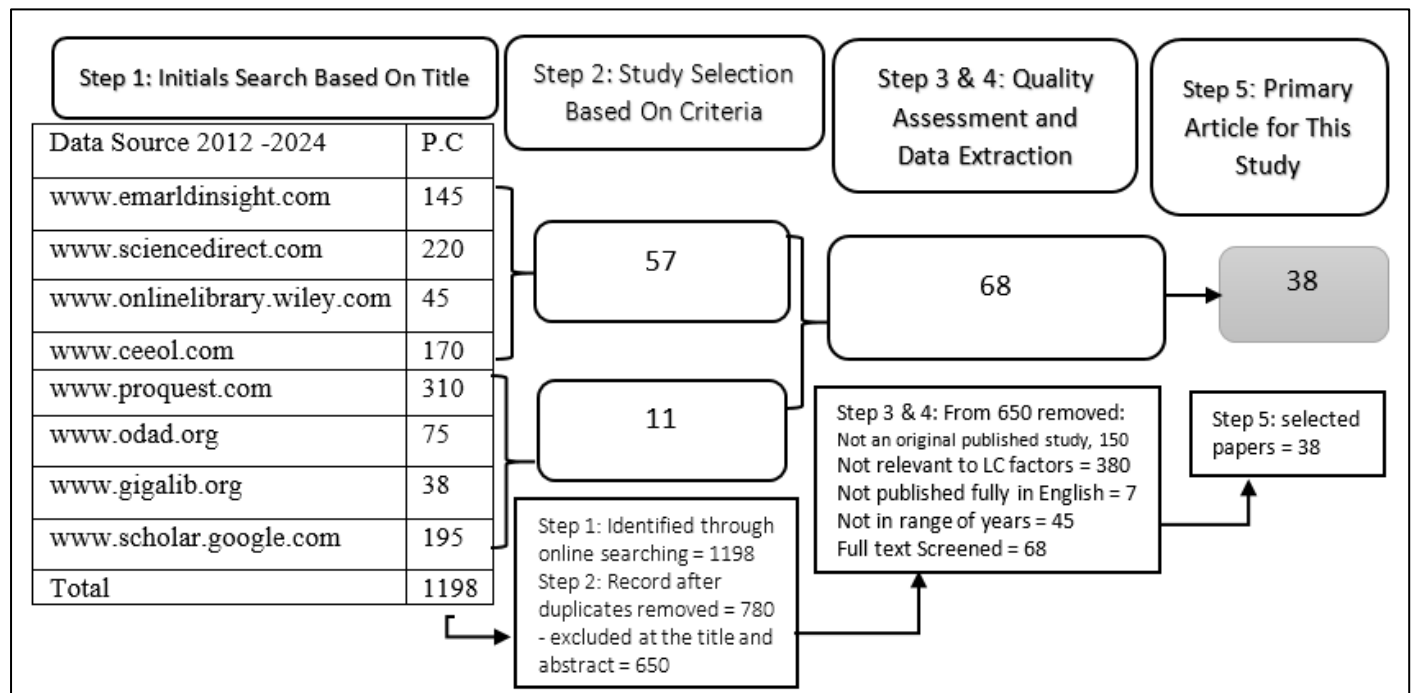


Fig 2 Sample Design

• Data “Extraction” and “Synthesis”

Data extraction and synthesis are pivotal steps in an SLR to ensure that the findings are both reliable and meaningful. For an SLR of lean communication, these processes help in identifying critical components, linking findings to theoretical frameworks, and providing actionable insights for both academic and practical applications. This review analyzed 38 studies. Maximum number of studies were conducted in the year 2012 and 2024 based upon The selected inclusion and exclusion criteria.

➤ Phase C: Reporting the Review

Table 4: presents the “types” of research methods used in the selected studies. The “case study” research method has the highest frequency among all research methods used in the selected studies 28, “SRL” were the next common method used 6; “Action Research” method was used 4; Also this table presents data analysis approach which 27 studies used “qualitative” research approaches, 5 selected studies used “quantitative” research approaches and 6 studies used “mixed” approach. And finally Table 10 presents data collection approach. It can be seen that “interviews” (27 studies) were used in most studies for data collection, 5 studies used “questionnaire” as data collection approach, 6 studies used “mixed method” as data collection approach.

Table 4 Summary of Selected Studies

Summary of Selected Paper		2012	2014	2015	2016	2017	2018	2019	2020	2021	2023	2024	Total
General Publication Count		140	110	80	95	70	75	155	145	130	66	132	1198
Selected Studies / Counts		2	4	2	3	4	2	4	5	4	3	5	38
Research Methods	Case Study Research	xx	xxx	x	xxx	xxx	xx	xxx	xxx	xxx	xx	xxx	28
	Action Research		x					x	x			x	4
	Cross Sectional												0
	SLR			x		x			x	x	x	x	6
Data Analysis	Qualitative	xx	xx	xx	xx	Xxx	xx	xxx	xxx	xxx	xx	xxx	27
	Quantitative		x		x			x	x			x	5
	Mix Method		x			x			x	x	x	x	6

Collection Method	Interview	xx	xx	xx	xx	xxx	xx	xxx	xx	xxx	xxx	xxx	27
	Observe												
	Questionnaire		x		x			x	x			x	5
	Mixed Methods		x			x			x	x	x	x	6

III. FACTORS DERIVED FROM SYSTEMATIC LITERATURE REVIEW (SLR)

Systematic Literature Reviews (SLRs) synthesize existing research to identify recurring themes, patterns, or factors within a specific domain. In current study the context of lean communication, the factors derived often align with its key components. Below are the typical factors derived from this SLR which have been classified in five (5) categories: A. “Communicator’s skills”, B. “Lean information”, C. “Lean message”, D. “Lean Chanel”, E. “Lean Feedback” in communication. These factors provide a comprehensive understanding of lean communication and its role in creating effective, transparent, and efficient interactions.

➤ Communicators’ Skills

As an essential part of lean communication, communication skills help reduce waste of time, increase accuracy and transparency in message transmission, and improve communication processes in the organization. These skills include fast problem-solving, comprehension, expression, trust-building, and social intelligence, and each plays an important role in fostering lean communication.

• Quick problem Solving Skill:

Quick problem-solving is one of the most essential skills in today's organizations, which enables people to make efficient decisions in critical moments. In lean communication, having quick problem-solving skills helps managers and organizations quickly identify and solve problems and avoid delays caused by waste in decision-making processes (Mehmood, Taresh, & Che Hassan, 2023; McKie, Jones, Miles, & Jones, 2021).

• Comprehension Skill:

Mutual understanding is important as the main element of lean communication. This skill not only helps people receive and interpret messages correctly and completely, but also prevents unnecessary misunderstandings and facilitates two-way interaction or feedback in communication (Kusel & Coetzee, 2024). Therefore, the ability to deeply understand the messages makes interactions in organizations quicker and more efficient.

• Expression Skills:

The skill of expression in lean communication refers to presenting information in a clear and concise manner. The ability to accurately and clearly convey messages without linguistic or structural complications is an essential feature of this skill. The effective expression of concepts and information helps the information transfer process to be on the right track, and unnecessary information is removed (Khoei, Kaul, Lewis, Daniel, & Sharma, 2017; Costigan & Brink, 2019).

• Trust Building Skills:

Building trust is another key skill in lean communication that helps reduce concerns and increase effective interactions between employees, leaders, and consumers. Building trust in organizations plays a significant role in improving performance and increasing employee motivation and provides a suitable context for lean communication. In other words, communicators must be able to build trust among audiences using lean communication tools by expressing clear, reliable, and concise words (Hardjati & Febrianita, 2019; Khoei, Kaul, Lewis, Daniel, & Sharma, 2017; Costigan & Brink, 2019).

• Social Intelligence Skills:

Social intelligence is the ability to recognize the feelings and reactions of others and to show empathy. This factor is vital for lean communication. This skill provides the possibility of adapting to various changes and exact comprehension what people's needs in communication process and transmission, also this skill is to in turn improves efficiency and reduces communication waste (Mehmood, Taresh, & Che Hassan, 2023). Social intelligence, especially in lean communication, improves interpersonal interactions and lays the foundation for creating a positive and empathetic environment in an organization (Mehmood, Taresh, & Che Hassan, 2023).

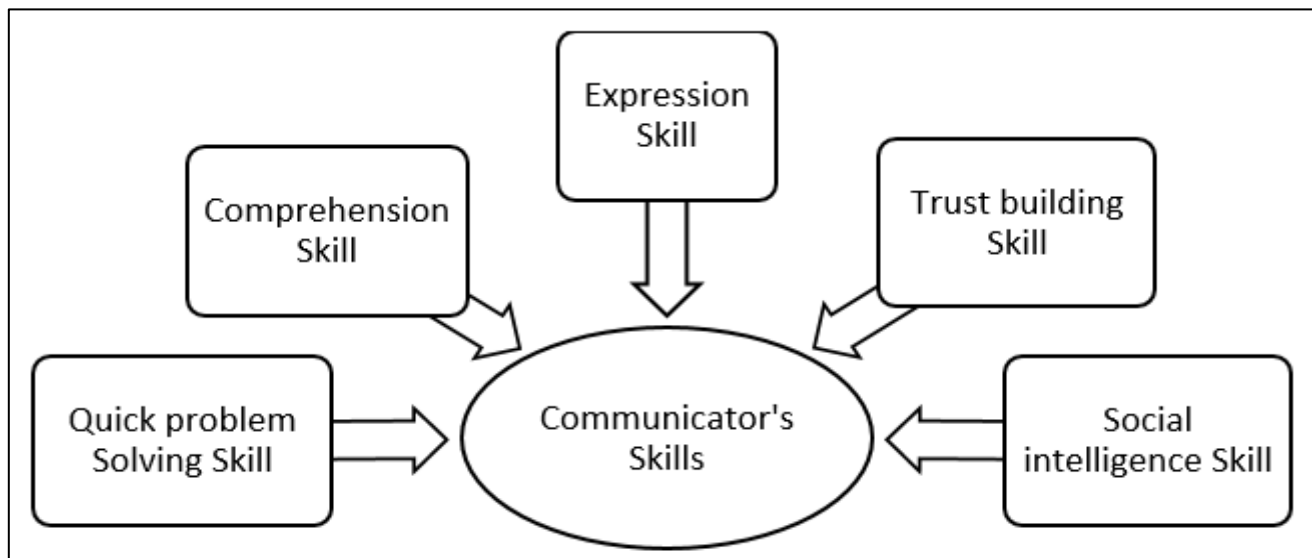


Fig 3 Communicator's Skills

➤ Lean Information

Currently, organizations are constantly faced with large amounts of information, and the correct and accurate use of this information can improve communication within the organization (Redeker, Kessler, & Kipper, 2019). Lean information includes main features such as "reliability information" and "customized information." These features help provide accurate, reliable, and targeted information to receivers and avoid creating unnecessary noise in the communication process (Cong, Sriram, & Ying, 2011; Redeker, Kessler, & Kipper, 2019). The main role of lean information in lean communication is to provide a platform for the transfer of information in a purposeful and unbiased manner (Redeker, Kessler, & Kipper, 2019). By reducing processing time and presenting lean information to communication, it is clear that the communication process is simpler and more efficient for decision-making and helps organizations avoid unnecessary changes and resources (Kusel & Coetzee, 2024).

• Valid And Reliable Information:

Reliable information is obtained from reliable and up-to-date sources (Kusel & Coetzee, 2024). This type of information guarantees the quality and validity of data in organizations and prevents misunderstandings and the spread of false information in communication processes (Cong, Sriram, & Ying, 2011). When information is shared reliably, trust between employees and managers increases and the efficiency of decision-making improves (Kusel & Coetzee, 2024). Based on this, the use of reliable information as an integral part of lean communication reduces errors, speeds up the transmission of messages, and smoothens the decision-making process (Rani, 2016; Kucheryavenko, Gayvoronskaya, Chistnikova, & Vinnik, 2019; Kusel & Coetzee, 2024; Redeker, Kessler, & Kipper, 2019).

• Customized Information:

Customized information refers to information that is adjusted and presented according to the specific needs of the audience in current or specific situations (Cong, Sriram, & Ying, 2011; Iliev & Petkov, 2020). Customization provides

the possibility of receiving accurate information related to a specific context and avoids sending unnecessary information that can cause noise in communication (Kusel & Coetzee, 2024; Redeker, Kessler, & Kipper, 2019). Customized information allows messages to be provided to people in a more efficient and targeted manner and prevents a reduction in communication productivity (Cong, Sriram, & Ying, 2011). For example, in public organizations, the use of customized information allows employees in different situations to quickly make decisions and accurately send tailored messages according to the needs of the audience (Kusel & Coetzee, 2024).

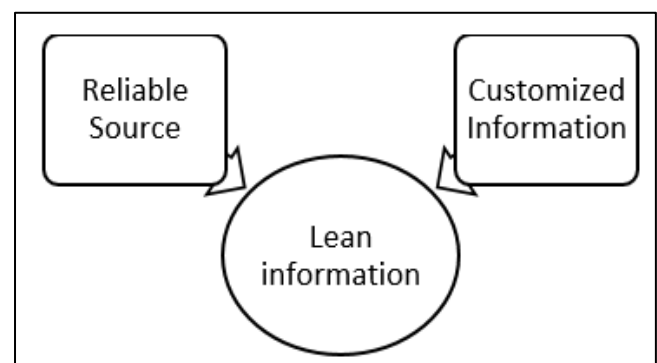


Fig 4 Lean Information

➤ Lean Message

As a key component in creating lean communication, lean messaging has five main features: concise, fresh, secure, pertinent, and persistent. These features allow the message to be conveyed to the audience in an efficient, concise, and purposeful manner, and avoid distortion or waste. In lean communication, a lean message, with the aforementioned characteristics, allows communication to be established efficiently and without distortion. These types of messages avoid wasting resources, removing noise, and helping organizations approach their goals by improving communication efficiency (Cong, Sriram, & Ying, 2011; Costeleanu, 2021; Emami, Bayat, Tafazolli, & Quddus, 2024; Mbelu, 2020; Rani, 2016; Kusel & Coetzee, 2024).

- *Concise Message:*

Concise messages refer to essential information without extrapolation, which removes any unnecessary edges and has directly dealt with the essence of the matter (Vladutescu, 2020). This compression makes messages easier to receive through the audience, fast, simple, and easy to perceive, and speeds up the decision-making process (Kusel & Coetzee, 2024). A concise message is one of the basic principles of lean communication because it helps to eliminate redundant information and avoid congestion in data transmission (Vladutescu, 2020; Mbelu, 2020).

- *Novelty Message:*

A Novelty message refers to the regular updating of information and ensures that the message is always up-to-date and relevant to the current conditions (Kusel & Coetzee, 2024). In the current situation, where the speed of information transfer is high and it is difficult to separate old and new information, sending new and timely messages will lead to better coordination in the processes and reduce the confusion of employees and stakeholders (Iliev & Petkov, 2020; Vladutescu, 2020). This novelty in the message causes the information related to the current conditions of the organization to be coordinated, and the most optimal actions are taken (Günay, 2021; Kusel & Coetzee, 2024; Sanina, Balashov, Rubtcova, & Satinsky, 2017; Redeker, Kessler, & Kipper, 2019).

- *Secure Message:*

Message security is an important element in lean communication that protects the integrity and confidentiality of the messages. Currently, in organizations, sensitive and confidential information must be transferred securely to avoid possible abuse and risks (Vladutescu, 2020). Secure messages are transmitted encrypted and confidential to ensure that only authorized individuals have access to information (Iliev & Petkov, 2020; Chmielecki, 2015; Mbelu, 2020; Redeker, Kessler, & Kipper, 2019).

- *Related Message:*

A related message refers to information that is precisely aligned with targeted needs and context. The related message is an important factor in creating lean communication, because the transmission of unrelated or off-topic information can cause ambiguity and inefficiency in the communication process and raise noise (Redeker, Kessler, & Kipper, 2019; Vladutescu, 2020; Ferreira & Barbosa, 2016). This issue is especially important in large organizations that require coordination between teams and departments and facilitates interdepartmental cooperation (Chmielecki, 2015; Lukas, 2021; Sapungan, et al., 2019).

- *Consistent Message:*

A consistent message refers to the stability and maintenance of communication between people over time (Vladutescu, 2020). When a message is communicated in a consistent and continuous manner, the audience will be informed of continuous changes, updates, and any ambiguity will be avoided. Finally, messages presented consistently are remembered much easier because subsequent messages do not conflict with previous messages (Mbelu, 2020;

Vladutescu, 2020). Consistent messaging helps create more trust and transparency between the sender and receiver and reduces the possibility of misunderstandings and communication problems (Iliev & Petkov, 2020; Raeissi, Zandian, & Mirzarahimy, 2019).

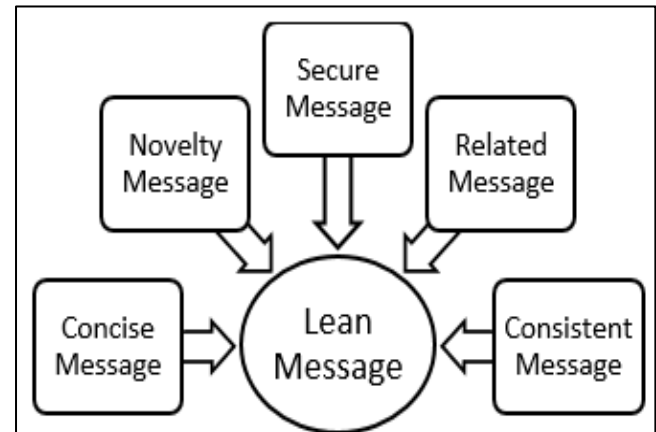


Fig 5 Lean Message

➤ *Lean Channel*

A lean channel in communication includes routes and tools that transfer information in an efficient, simple, and targeted manner. The key features of the lean channel include fast and direct paths, visual tools, diverse channels, wide tools, and focus on mobile-centric channels. These features accelerate the transmission of information and increase the transparency and accuracy of communication processes. In lean communication, the lean channel facilitates the communication process because of the aforementioned features. These channels help organizations achieve communication goals and increase productivity by improving the information transfer process and reducing unnecessary noise (Talha & Patzold, 2011; Vladutescu, 2020; Sanina, Balashov, Rubtcova, & Satinsky, 2017).

- *Fast and Direct Route:*

The lean channel provides a fast and direct path for message transmission and avoids unnecessary complications and delays. This feature is especially important for large organizations that are faced with a large amount of information. Direct paths in information transmission guarantee faster and more effective interactions and lead to increased communication efficiency (Adu-Oppong & Birikorang, 2014; Rani, 2016; Redeker, Kessler, & Kipper, 2019; Kusel & Coetzee, 2024).

- *Visual Tools:*

Visual tools, such as charts, graphs, and infographics, make it easier to convey complex concepts. These tools present key messages in a clear and understandable manner, and allow the audience to process information more quickly. Visual tools are more effective, particularly when it is necessary to convey complex and specialized concepts (Mbelu, 2020; Günay, 2021; Costigan & Brink, 2019).

- *Various Channels:*

The existence of various channels in a lean communication system makes it possible to use the best methods for any type of communication because after the first contact, the initial part of the transmission choice can be extended to richer communication channels (Sanina, Balashov, Rubtcova, & Satinsky, 2017). For example, email, SMS, and video conferences have their own advantages in different situations, and choosing the right channel can help strengthen communication (Chmielecki, 2015). This variety increases the flexibility of the communication system, reduces communication barriers, and improves the efficiency and effectiveness of transmission and communication (Kucheryavenko, Gayvoronskaya, Chistnikova, & Vinnik, 2019; Kusel & Coetzee, 2024; Sanina, Balashov, Rubtcova, & Satinsky, 2017).

- *Extensive Tools:*

The extensive use of tools refers to the possibility of easy access to information through various platforms and devices (Cong, Sriram, & Ying, 2011). These tools can include content management systems, file sharing platforms, and internal networks of the organization that make information available to everyone and prevent any delay in transmission (Anwar, Rehman, Wang, & Hashmani, 2019). Wide access to communication tools increases coordination and facilitates decision-making processes (Iliev & Petkov, 2020; Walbeck, 2019; Sanina, Balashov, Rubtcova, & Satinsky, 2017).

- *Mobile Based:*

Owing to the easy and quick access of these tools to information, the use of mobile-based channels plays an important role in lean communication (Talha & Patzold, 2011). Mobile is used as an available tool to send and receive messages, updates, and access organizational information in a timely manner (Talha & Patzold, 2011). Mobile-based channels increase efficiency and accessibility by providing instant communication and help reduce communication delays (Redeker, Kessler, & Kipper, 2019; Erunkulu, Zungeru, & Mosalaosi, 2021; Talha & Patzold, 2011; Kusel & Coetzee, 2024).

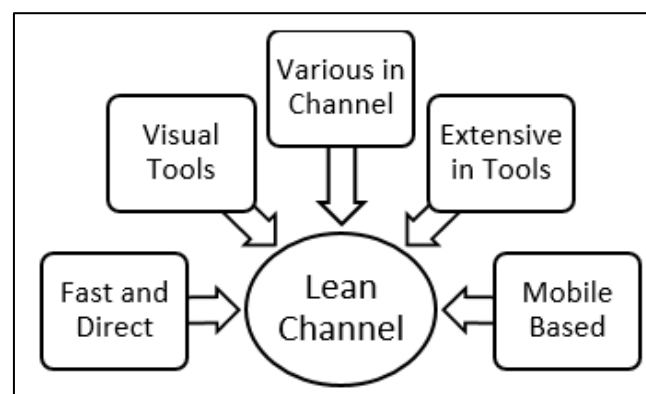


Fig 6 Lean Channel

➤ *Lean Feedback*

Lean feedback in lean communication refers to feedback characterized by features such as speed, clarity, and

relevance (Berg, Jahed, & Carrengton, 2024; Lim & Bowman, 2024; Morrison & Jacobsen, 2023). This type of feedback helps improve the quality of two-way interactions, increasing the efficiency of the organization and ensuring that the intended messages and actions are properly understood and implemented (Chmielecki, 2015; Cong, Sriram, & Ying, 2011). The role of lean feedback in creating lean communication by providing quick, clear, and relevant answers makes organizational processes smoother and without ambiguity. This feedback effectively improves performance, increases productivity, and reduces communication barriers (Chmielecki, 2015; Cook & Steyn, 2024; Liao & Hsu, 2023). In addition, lean feedback helps the receivers become aware of necessary corrections, any changes in process and results, and finally increase the quality of decision-making (Liao & Hsu, 2023; Sapungan, et al., 2019; Chmielecki, 2015; Cook & Steyn, 2024).

- *Fast and Direct Feedback:*

as one of the principles of lean communication refers to providing answers and corrections in the shortest possible time (Cook & Steyn, 2024; Chmielecki, 2015; Liao & Hsu, 2023). Quick feedback allows people to notice defects or problems in their work processes in time and correct them immediately (Sapungan, et al., 2019; Liao & Hsu, 2023; Campean, et al., 2024; Cook & Steyn, 2024). For organizations, this feature reduces delays in remediation and improves performance, allowing team members to react quickly to changes (Campean, et al., 2024; Emami, Bayat, Tafazolli, & Quddus, 2024).

- *Clarity in Feedback:*

Clarity in feedback is explicit and transparent when providing information (Adu-Oppong & Birikorang, 2014; Campean, et al., 2024; Chmielecki, 2015; Cong, Sriram, & Ying, 2011). Clarity in feedback reduces ambiguity and allows the recipient to know exactly what needs to be improved or changed (Sapungan, et al., 2019). This causes the message to reach its destination clearly and without misunderstanding, and as a result, communication efficiency increases (Emami, Bayat, Tafazolli, & Quddus, 2024; Chmielecki, 2015). Clarity in feedback helps to build trust and improve relationships between organization members and facilitates communication processes and decision-making (Iliev & Petkov, 2020; Campean, et al., 2024; Chmielecki, 2015; Cook & Steyn, 2024).

- *Related Feedback:*

Related feedback refers to feedback that is directly related to the topic and content of the original message (Liao & Hsu, 2023; Cong, Sriram, & Ying, 2011). This feature allows feedback recipients to focus on specific issues and receive accurate and effective information and communication instead of additional and unnecessary information (Cook & Steyn, 2024; Campean, et al., 2024). This type of feedback prevents distraction, increases concentration in the communication process, and is very effective in creating lean communication (Campean, et al., 2024; Cook & Steyn, 2024).

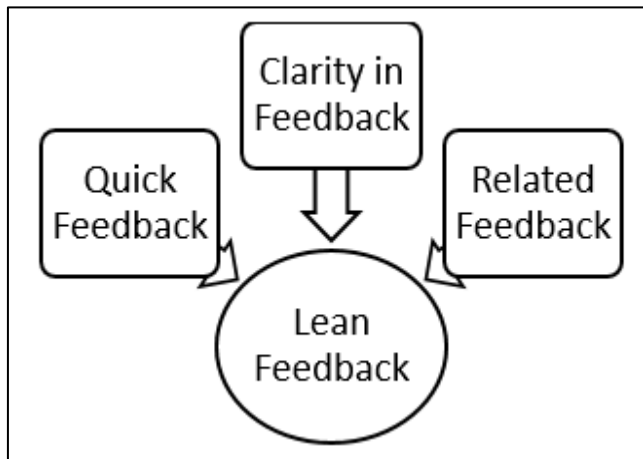


Fig 7 Lean Feedback

➤ *Joining of Factors:*

When considering the integration of various factors in lean communication, it is essential to understand how different elements can work synergistically to optimize communication processes and outcomes. The joining or integration of factors derived from a Systematic Literature Review (SLR) in the lean communication process involves identifying interconnections and dependencies among the factors to build a cohesive framework. These factors, such as lean communicators' skills, lean information, lean messaging, lean channels, and lean feedback, collectively contribute to optimizing communication by reducing inefficiencies and enhancing clarity and effectiveness. Here are some key considerations for joining Lean Communication factors together, as shown in Fig 8

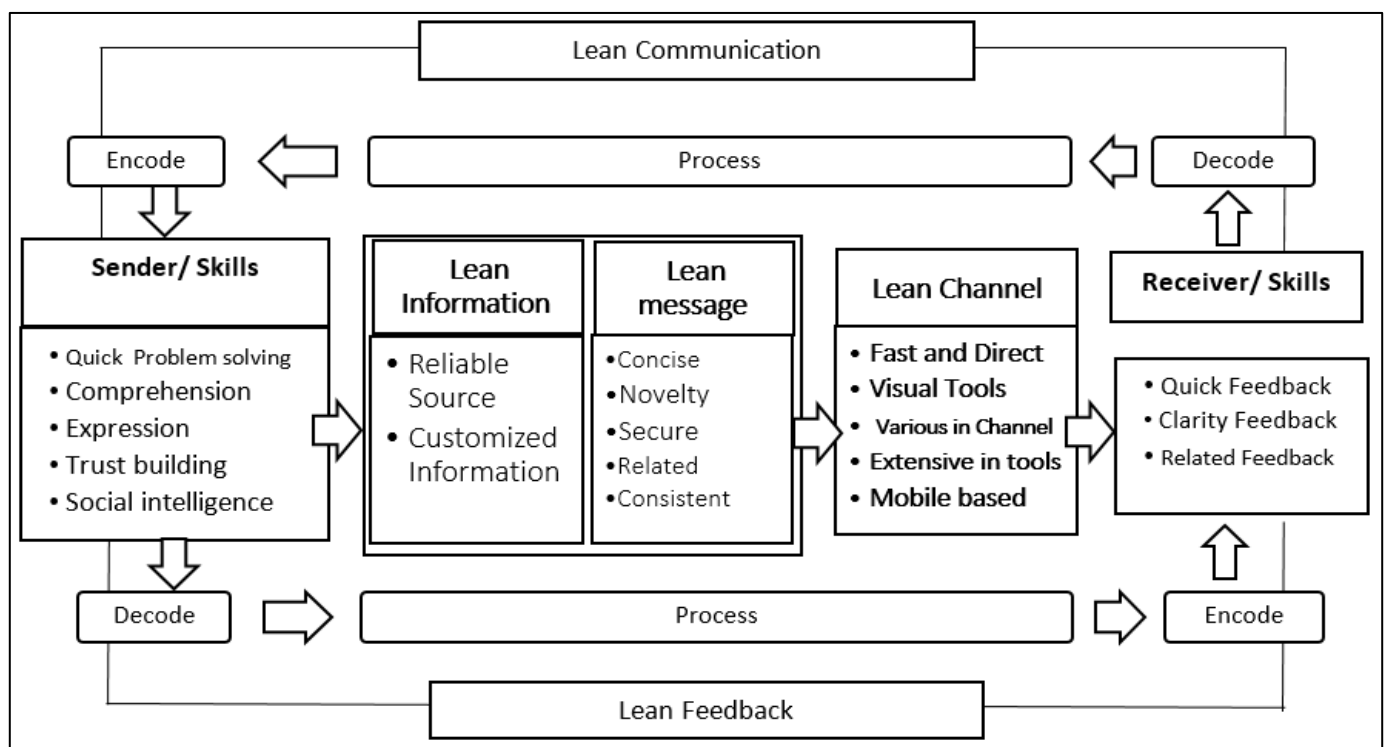


Fig 8 Joining of Factors

➤ *Factors Analysis:*

Improving lean communication can have a profound impact on both personal and professional lives. It fosters stronger relationships by ensuring clarity and conciseness, builds credibility and trust through consistency, enhances problem-solving and decision-making abilities, opens up new opportunities for growth, and increases the overall effectiveness and success of organizational communication. This study presents a review of lean communication factors with respect to organizational behavior and development. In this study, the lean communication factors were classified into five categories: communicator or interface skills, lean information, lean messages, lean channels, and lean feedback. To achieve lean communication in organizations, organizational strategists and developers must understand the dynamics of all categories identified in this study. Fig. 8 presents lean communication factors for each category divided into each factors. ‘Communicator’s Skills,’ ‘Lean

Message” and “Lean Channel” category had the highest frequency of factors as reported (5) “Lean feedback” category with (3) factors and 2 factors were reported for the “Lean Information” category.

➤ *Significance of the Identified Factors:*

Lean communicators may consider utilizing the identified factors by going through the list of LC factors and evaluating themselves against each factor to understand their strengths (e.g., communication skills) and potential skills in communication (e.g., expression or trust- building). The results of such analysis may suggest where managerial skills efforts and resources may be required to nurture LC in organization. The summary of all factors is presented in Table 5. From the factor’s category “communicator’s skills” is the essential and vital emerged factor as the most cited factor (5) and the element of this factors repeated 56 frequencies in the selected studies. Therefore, communicators need to focus on

increasing their capacity building to achieve communication skills and relevant activities for their team members to facilitate LC process. According to the analysis of this study “lean Feedback” with 3 basic elements and 54 frequencies is the second and important factor for creating lean

communication, therefore it is suggestable for organizations to focus on these two important factors on their communication strategy and capacity building of their employees.

Table 5 Significance of the Identified Factors.

Factors	Components	Studies	Frequency	Total
Communicator's Skills	Quick Problem Solving	[1], [22], [23], [36], [44]	5	56
	Comprehension	[9], [10], [13], [15], [29], [43], [45], [46]	8	
	Expression	[2], [7], [9], [10], [15], [16], [17], [20], [26], [33], [34], [41], [42], [43], [45], [46]	16	
	Trust building	[1], [2], [4], [7], [8], [9], [13], [17], [22], [35], [36], [42], [43], [44], [45]	15	
	Social Intelligence	[2], [7], [8], [9], [10], [11], [15], [26], [29], [31], [35], [43]	12	
Lean Info	Reliable Source	[12], [26], [29], [38], [42], [43],	6	12
	Customized Info	[3], [9], [12], [17], [31], [38]	6	
Lean Message	Concise	[1], [3], [9], [17], [29], [33], [41]	7	46
	Newest	[17], [34], [42], [43], [46]	5	
	Secure	[11], [14], [22], [38], [40], [42], [43]	7	
	Related	[2], [3], [4], [6], [7], [8], [9], [12], [16], [20], [22], [29], [36], [43], [46]	15	
	Consistent	[1], [3], [6], [7], [12], [17], [29], [33], [35], [38], [43], [46]	12	
Lean Channel	Fast and Direct	[5], [6], [10], [14], [17], [26], [31], [33], [34], [38], [42], [43]	12	49
	Visual Tools	[9], [11], [13], [16], [23], [29], [33], [34], [38], [43], [46]	11	
	Various in Channel	[3], [6], [10], [14], [23], [26], [29], [31], [34], [38], [41], [44], [45]	13	
	Extensive in Channel	[4], [14], [20], [38], [41], [43]	6	
	Mobile Based	[11], [14], [17], [19], [33], [38], [43]	7	
Lean Feedback	Quick	[5], [6], [9], [10], [14], [16], [17], [23], [26], [29], [31], [33], [34], [36], [38], [42], [43], [44], [45]	19	54
	Clarity	[1], [2], [3], [4], [5], [6], [7], [9], [10], [13], [14], [19], [22], [33], [34], [41], [42], [43], [45], [46]	20	
	Related	[2], [3], [4], [6], [7], [8], [9], [12], [16], [20], [22], [29], [36], [43], [46]	15	

IV. CONCLUSION

This systematic literature review has identified and analyzed the key components of lean communication (communicators' skills, lean information, lean messaging, lean channels, and lean feedback) providing a comprehensive framework for optimizing organizational communication processes. The findings underscore the importance of clarity, conciseness, and efficiency in communication, aligning with the principles of lean thinking to eliminate waste and enhance transparency. By focusing on recipient-centered strategies, lean communication ensures that messages are not only transmitted but also effectively received and understood, thereby improving decision-making, productivity, and trust within organizations. The study highlights that communicators' skills, particularly social intelligence,

comprehension, and expression, play a pivotal role in facilitating lean communication. Additionally, the use of reliable and customized information, secure and concise messaging, fast and direct communication channels, and timely, relevant feedback are critical for maintaining an efficient communication process. These factors collectively contribute to reducing ambiguity, minimizing noise, and fostering a culture of open and effective communication. However, the study also acknowledges certain limitations, such as the heterogeneity of the selected studies and potential publication bias, which may affect the generalizability of the findings.

In conclusion, the identified factors serve as actionable guidelines for organizations seeking to streamline their communication processes. By adopting lean communication

practices, organizations can enhance internal and external interactions, improve customer satisfaction, and achieve their goals more efficiently. This study not only contributes to the academic understanding of lean communication but also provides practical insights for policymakers, managers, and communication professionals aiming to foster a lean communication culture in their organizations.

➤ *Key Recommendations for Organizations:*

- Focus on Communicators' Skills: Invest in training programs to enhance employees' problem-solving, comprehension, expression, trust-building, and social intelligence skills.
- Optimize Information and Messaging: Ensure that information is reliable, customized, and presented in a concise, secure, and relevant manner.
- Leverage Efficient Channels: Utilize fast, direct, and mobile-based communication channels, supported by visual tools, to facilitate quick and clear information transfer.
- Encourage Lean Feedback: Foster a culture of quick, clear, and relevant feedback to ensure continuous improvement in communication processes.
- Eliminate Noise: Remove unnecessary or redundant information to reduce ambiguity and enhance the clarity of communication.

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