

RISK COMMUNICATION MODEL FOR IMPROVING SAFETY CULTURE AT THE NATIONAL OIL COMPANY

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Abstract:

Communication System the concept of System or Communication Model to achieve the goal of improving Safety Culture in the National Oil Company. Method research is Mixed (quantitative and qualitative). In this study using Katherine Miller's theory which consists of three system concepts, namely system components, system processes and system properties to analyze communication processes both internally and externally, is necessary to add an analysis of the system concept, namely monitoring and evaluation. The influence of organizational communication variables with communication climate, communication satisfaction and to develop a safety culture with variables: safety climate, situational, safety behavior. Organizational communication is in the very good category (75,07%) communication climate (73,08%) good category, there is a positive and significant relationship between communication climate and organizational communication); Communication satisfaction of (78,38%) is in the good category; there is a positive and significant relationship. Communication satisfaction and Organizational Communication. Can find a new communication system or model, namely (Model - SIKATBUKA) is a system or model that can accommodate the interests of leaders and subordinates as well as stakeholders, the surrounding community in resolving communication aspects within of the National Oil Company. This communication model or system will become a standard in the communication system in the implementation of the of National Oil Company and also function as can detect problems related to communication in the communication system process that appears in the field. The model-SIKATBUKA.

Keywords: Communication System, Organizational Communication, Safety Culture

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INTRODUCTION

Croucher and Daniel Cronn-Mills (2015) in their book Understanding communication research methods a theoretical and practical approach state that; A process explains how in communication there is a sender, a message and a receiver. When the receiver provides feedback a transaction occurs between the communicator. When the receiver provides feedback or response, there is a transaction between the communicator. Furthermore, it is stated that: Communications is a technological system for the transmission of information, examples of communications systems include telephone, cable, television fiber optics the internet. Communication tools are a technological system for sending and receiving information internet.

Risk communication in the face of incidents is the physical and mental condition of a person who underlies the management of information in the face of the risk of accidents, fires, explosions and environmental

pollution. In behavioral theory, the desire to perform an action is based on its knowledge, belief in subjective norms and confidence in controlling resources. An unexpected or desirable event that threatens and disrupts people's lives and livelihoods resulting in human fatalities, asset damage, pollution/environmental damage, property losses and psychological impacts. Many general requirements are required to be able to carry out effective risk communication, particularly risks involving the wider community, and all these considerations can be grouped into a series using a systematic approach to the risk communication process. This effort can be started by collecting the necessary background and information followed by the preparation of messages, dissemination and distribution, and follow-up studies and evaluation of their impact. Communication as a science that studies human behavior in communicating, can also be described in a wide variety of models. Communication models are created to help in giving an understanding of communication, and also to specify the forms of communication that exist in human relationships. According to Werner and Tankard, models help formulate and suggest relationships between models and theories so closely, models are often mixed with theories. Models can serve as the basis for more complex theories, tools for explaining theories and suggesting ways to improve concepts. Communication theorists create models, or representations of complex relationships between elements in the communication process, that make it easier for us to understand complex processes. Models help us provide an idea of the basic components of a process or system, the function of prediction, through the model we can estimate about the results or consequences that will be achieved.

The fundamental objective of OHS communication is to provide meaningful, relevant and accurate information, in clear and understandable terms, to specific stakeholders, which in turn can: promote awareness and understanding of health and safety management and specific risk issues; promote consistency and transparency in reaching and implementing OHS risk management decisions; contribute to the development and effective delivery of information, instruction and learning opportunities; foster trust and confidence among stakeholders in the OHS management system; strengthen working relationships and mutual respect among all participants in health and safety; exchange information on knowledge, attitudes, values, practices, and perceptions of interested parties regarding OHS. For this reason, in building an Safety Culture, of course, consistency between action and communication is needed, so the communication strategy is in the form of a Communication Model that is carried out by the Oil & Gas industry will have an important role in this process. The Communication Model compiled and developed is the best step in achieving the goal of improving Safety Culture. In addition, in the process of building the Safety Culture, the National Oil industry experiences various communication dynamics that occur which is very important, because without effective communication it is impossible to be part of the organizational system of the National Oil & Gas industry will synergize well. The communication model itself is the process of individuals sending stimuli which are usually in verbal form to change the behavior of others. For the communication process in the organization of the National Oil & Gas industry requires planning that uses appropriate communication models in communicating, where good communication between one another must be interconnected. The important role of organizational communication is as a prerequisite for an organization to get the same understanding of an information or message so that will get effective results, meaning that every communication process in an organization is carried out to meet the goals of the organization which involves organizational systems with one another that are interdependent and interact in subsystems through communication actions.

Organizational Communication

Organization is a system. The system is a unit consisting of at least two parts or subsystems that are interconnected interdependently. In the subsystem, there are also elements that are interconnected interdependently. The term formal organization is used to emphasize the difference in understanding with informal organization which is given the meaning of continuous and repeated contacts or interactions without a planned common goal (Barnard, 1938: 114). Coordinated activities means communication that (1) integrates or integrates different activities into a collaboration; (2) directing the cooperation to a single goal; and (3) hierarchical implications because coordination is an action taken by people who have a higher position in the organizational structure than those who carry out activities. With the basis of communication and organizational design, organizational communication according to Gold Haber is the sending of messages that are reciprocal or interdependent (the flow of messages within a network of interdependent relationships). According to R. Wayne Pace & Don F. Faules, (2011). Organizational communication that is intertwined both vertically and horizontally often causes obstacles that ultimately lead to lack of communication or in other words the occurrence of miss communication. Therefore, every company needs to maintain the flow of communication with each of its members in order to create

effective communication. Effective communication will occur when the message conveyed by the communicator can be well received by the communicant and the communicant provides feedback on the message received. With the creation of effective communication, the relationship between members in an organization will also be well established so that it will create a positive work environment and more open communication between superiors and subordinates as well as with fellow employees. The most intimate relationships we have with other people on a personal level, between friends, peers, are usually referred to as interpersonal relationships. Specific analysis (Pace & Boren, 1973) on the effectiveness of interpersonal relationships.

Organizational Theory

Some organizational theories that help to see the communication process in organizations such as classical theory, human relations theory, systems theory, political theory and symbol theory. Each part has its own role and is related to other parts and therefore coordination is important in this theory. Organizational General Systems Theory. All organizations are systems. Each system takes a source or input from the environment then processes it and issues output to its environment. The output of the system is never the same as the input. Organizations do something to process inputs, create outputs that will help achieve organizational goals. The mediating process of the interaction of system parts and between systems and their environment leads the organization to create outputs that are more than just the material and information that has been provided as input. The combination and coordination of activities of all system components creates a synergy or additional energy, for the output of the system, making the system transform raw materials into useful or profitable end products.

Communication Organization

One of the most obvious characteristics of organizational communication is the concept of relationships, Goldbaber (1979) defines the organization as "a network of interdependent relationships" (Pace & Faules, 2001: 201). When things are interdependent, it means that they influence each other. The most intimate relationships we have with other people on a personal level, between friends, peers, are usually referred to as interpersonal relationships. In organizational communication can be explained as follows:

1. Internal Communication,

Organizational internal communication is the process of delivering messages between members of the organization that occurs for the benefit of the organization such as communication between leaders and subordinates, among subordinates, and so on. Also communication can be a primary or secondary communication process (using mass media). Internal communication is usually divided into two, namely:

- a. Vertical communication, namely communication from top to bottom and from bottom to top. Communication from leaders to subordinates and from subordinates to leaders. In vertical communication, the leader gives instructions, instructions, information, etc. to his subordinates. While subordinates provide reports, suggestions, complaints, etc. to the leadership.
- b. Horizontal communication, namely communication between each other such as from leaders to subordinates or fellow levels. Messages in this communication can flow in the same part of the organization or flow between parts. This horizontal communication facilitates the exchange of knowledge, experience, methods and problems. This helps organizations to avoid problems and solve others, as well as build morale and job satisfaction.

2. External Communication

Organizational external communication is communication between organizational leaders and audiences outside the organization. External communication consists of reciprocal pathways:

- a) Communication from the organization to the public. This communication is generally carried out in an informative way, which is carried out in such a way that the audience feels involved, at least there is an inner connection. This communication can take various forms, such as: organizational magazines, press releases, newspaper or magazine articles, speeches, documentaries, brochures etc.
- b) Communication from the audience in the organization is feedback as the effect of activities and communications carried out by the organization.

In simple terms, the organization is known as a forum for cooperation from a group of people to achieve predetermined goals. As a forum, the organization can be seen as something that is external, material, which exists in forms that can be seen and touched, such as buildings, machine tools and work technology. While the spiritual nature is seen in the values and norms in the form of regulations and legislation governing the cooperation. Everyone in the organization has their own role and status. Because

the role and status of a person determines the way we communicate with others. Effective communication is important for all organizations, healthy communication is needed. One means of communication within the organization can be in the form of organizational culture. Organizational culture is a communication model that regulates values and norms within the organization. The communication model itself is the process of individuals sending stimuli which are usually in verbal form to change the behavior of others. In the organizational context, the organization acts as a communicator, and important information or company policies are messages to be conveyed, through organizational culture as a communication channel, which is addressed to all employees/workers in the organization.

Katherine Miller's system theory

Systems theory did not originate in organizational studies but rather in the fields of biology and engineering. One of the key to the systems movement was Ludwig Von Bertalanffy, a theoretical biologist who was interested in studying "Systems live in their own academic field. However, von Bertalanffy was also concerned with the extent of intellectual discipline. isolated from each other, and argued that the concept of systems could be applied to many fields of both the natural and social sciences. In 1968, he published *General Systems Theory*, a book supporting systems theory which he believed was as appropriate for the social sciences as for The study of systems was cleverly adopted by organizational theorists, the most influential application of systems theory to organizational processes appearing in 1966 with Katz and Kahn's *The Social Psychology of Organization*, arguing that organizations should be conceptualized as complex open systems requires interaction between a component parts and interactions with the environment for survival. In short, the 1960s and 1970s marketed intensively on the systems metaphor as an avenue for understanding organizational behavior and communication processes. How the system theory embraces certain aspects of the systems metaphor. First looks at what the system is made of system components, then considers how the system works, and system processes. Finally, we can find the characteristics that emerge from the components and processes of the system-system properties which can be described as follows:

1. System components

There are three characteristic concepts of system components, namely Hierarchical ordering, Interdependence, Permeability. The most basic level of the system is a component or a collection of components. In organizational systems these components are the people and departments that make up the organization. In short, the first task of systems theory is to identify the relevant components that comprise the systems that make up the system. Then consider seeing how these components are structured and how the system works - system processes.

2. System process

How the hierarchical, independence and permeability components work in system. At the most basic level the system is characterized by an input-throughput-output process (Farace, Monge & Russel (1970) in Miller (2015: 63) means placing inputs of materials or information from the environment through their permeability constraints. The system then works on these inputs with this type of process. transformational process; this process is throughput. Finally, the system returns outputs (outputs) to the environment. For example, a furniture manufacturer enters raw materials, such as wood and cloth, converts these inputs into products (outputs) such as chairs and sofas and issues these products to consumers. Buyer communities also enter and modify information. These examples characterize the system's operating processes.

3. System properties

According to Miller (2015: 63-65) There are four properties of systems that arise from the interaction of components and processes that are very relevant, namely: holism, equality, negative entropy, and required variation.

A positive communication climate tends to increase and support commitment to the organization. A strong and positive communication climate often results in more supportive management practices and organizational guidelines. The use of mechanisms to improve climate, in fact, does not only affect climate but causes more fundamental changes in the fundamental processes that make up the material and substance of organizations. The existence of the communication process can affect the communication climate of the employee's organization or not. Organizational elements and organizational communication processes indirectly influence the formation of organizational communication satisfaction. (Dennis, 1924).

Communication Climate

Communication climate is a macro image, abstract and a combination of a global phenomenon called organizational communication. We assume that climate develops from the interaction between the traits of an organization and individuals' perceptions of those traits. Climate is seen as a subjective experience quality that stems from the perception of relatively enduring characteristics of the organization (Falcione et al. 1987, pp. 198, 203). Payne and Pugh (1976) define organizational climate as a concept that reflects the content and strength of the general values, norms, attitudes, behavior and feelings of members towards a social system. Furthermore, Litwin and Stringers (1968) provide the dimensions of organizational climate as follows: 1. Responsibility; 2. Standards or expectations about the quality of work; 3. Rewards or rewards. 4. A sense of brotherhood. 5. Team spirit. They say that organizational climate can be studied by observing the amount of individual autonomy, the freedom experienced by individuals, the degree and clarity of structure and positions assigned to workers, the orientation of rewards from the organization and the amount of support and warmth provided to workers. Dennis in Goldhaber (1993:66) that the communication climate is "a subjectively experienced quality of the internal environment of an organization which embraces members' perceptions of messages and messages related to events occurring in the organization". Communication climate is the quality of the organization's internal environment experienced personally by workers which includes the perceptions of all employees about the messages that occur in the organization. Communication climate affects the way they organize, their development, who they talk to, who they like, how they feel. them, how they work, the goals of their organization and how they adapt to the organization.

Communication Satisfaction

Communication satisfaction is a function of what a person gets with what he expects. Communication satisfaction is not tied to the concept of message effectiveness. If the communication experience satisfies one requirement, it may be rewarded as satisfactory, even if the communication is not effective by some standards. If information is communicated in a way that is consistent with what is expected, we experience satisfaction with the communication. Thus communication within the organization can take place effectively and be able to provide communication satisfaction for communicants and communicators. Overall, satisfaction relates to the difference between what people want from the point of view of communication within the organization and what people have in relation to it. Satisfaction has little to do with the effectiveness of conveying a message, but when the experience of communicating satisfies a person's desires, it is usually viewed as satisfying. Satisfaction is a concept usually associated with convenience, so satisfaction in communication means that you feel comfortable with the messages, media and relationships within the organization. Convenience has a tendency, in this case sometimes causes individuals to prefer new ways of execution, which often fail to result in increased task performance (Pace and Faules 2001:162). Redding states that communication satisfaction is all levels of satisfaction of an employee perceiving the overall communication environment. Satisfaction in showing how well the available information meets the requirements of organizational member requests for demands for information, from whom it comes, how it is disseminated, how it is received, processed and how the recipient responds. Communication satisfaction is a function of what one gets and what one expects. Overall, satisfaction relates to the difference between what people want from the point of view of communication within the organization and what people have in relation to it. When information is communicated in a way that is in accordance with the wishes, then the individual will experience satisfaction in communicating. Satisfaction is a concept that is usually related to comfort; So satisfaction in communication means you are comfortable with messages, media and relationships within the organization. (Arni Muhammad in his book entitled "Organizational Communication", 2015)

Risk Communication (OHS Communication)

According to AS/NZS 4360: 2004 Risk Management Standard, risk management is "the culture, process, and structures that are directed towards the effective management of potential opportunities and adverse effects". activities: setting context, identification, analysis, evaluation, control and risk communication. This process can be applied at all levels of activities, positions, projects, products or assets. Main objective of risk communication is to provide meaningful, relevant and accurate information in clear and easy-to-understand terms to a specific audience. According to David S, Anderson and Richard E. Miller, his book Health and Safety Communication a practical guide forward, 2017, Safety and Health is a dynamic state of life that involves a degree of personal risk, functionality and satisfaction. Stated clearly, health is central to your life and the lives of those around you. Without health, life's challenges seriously jeopardize your well-being with health, you can lead a more fulfilling life. Communication problems in OHS (Occupational, Health and Safety) are not only between humans and humans, but also in other ways.

Building an installation, factory, machine, work tool or vehicle must consider the communication aspect in its operation so that it can run safely. This type of OHS communication is carried out to convey OHS messages to all elements in the organization, both internal and external. are as follows: a) Personal Communication, Personal communication is OHS communication that is given directly to workers. For example, communication between supervisors and their subordinates. OHS messages can be given directly through face-to-face; b). Group Communication, Group communication is OHS communication given to certain or general groups, for example in the form of Safety Talks, Tools Box Safety Meetings, group meetings, training, and socialization. (David S, Anderson and Richard E. Miller, 2017). According to Craig Slatin in "Risk Communication in Occupational Health and Safety", 2020, Health & Safety Risks in the Workplace are:

- Risk of Disease/Illness, Injury, Death/Death
- Hazardous Substances, Toxic Materials, Biological Agents
- Unsafe working conditions
- Poor ergonomic working conditions
 - make the job fit for the worker, instead of forcing the worker to fit the job
- Work organization and psychosocial tension
- Any combination – often all of them (Regina E. Lundgren & Andrea H. McMakin,2013)

Safety Culture

Safety culture consists of 3 (three) variables, namely safety climate, situational (safety management system), and safety behavior. After synthesizing various literatures, climate/safety culture research, climate/safety culture instruments, these three variables have 12 (twelve) indicators. The details are the safety climate variable consisting of 7 (seven) indicators. The situational variable (safety management system) consists of 3 (three) indicators and Safety behavior consists of 2 (two) indicators, namely safety compliance, safety participation. Safety culture is a sub-component of organizational culture that discusses individual work safety, work and things that are prioritized by the organization regarding work safety. The establishment of a good work safety culture is to prevent the emergence of unsafe acts and unsafe conditions in the work environment. Cooper's model describes three interacting factors that make up a safety culture. The first factor is internal psychology, which is the subjective perception or attitude of the individual which can be measured using a safety climate questionnaire. The second factor is behavior which is an observable level of effort by which all members of the organization direct their attention and actions towards improving safety on a daily basis. The third factor is situational which is the safety management system applied to the organization. Situational factors can be measured through safety management system audits/inspections. (Cooper,2009).

Safety Culture Measurement Level Model (Safety Culture)

The concept of model development is an innovation from the latest research in the safety management discipline and application to the development of a safety culture in several "High Hazard" categories such as: oil and gas (offshore), aviation (aviation), rail and petrochemical (petrochemical) industries. (Foster, 2013). The model is derived from the concept of quality development and organizational development such as the capability maturity model that has been used in the software industry. The development model, which is used or the company to understand the level of improvement of its safety culture by assessing compliance with key safety elements at several stages (usually 5) representing different levels of development. Hudson's (2006) model has been used to describe the level of safety excellence in many industries including oil and gas, aviation, and healthcare. The model describes a five-step development from the "pathological" stage where the culture is "don't care" and "no systems" to the "generative" stage where managing risk is a way of life and effectively implementing integrated systems in the workplace. The description of each stage of the Hudson model of safety culture is: 1. Pathological – Safety is a problem caused by workers. The main drivers are business and the desire not to get caught by the regulators; 2. Reactive – Organizations start to take safety seriously but only act after an incident has occurred; 3. Calculative – Safety is maintained by a management system, with a lot of data collection. Safety is prioritized by management and enforced by the workers themselves; 4. Proactive – With performance improvements, the unexpected is a challenge. The involvement of workers began to move the initiative from a top-down approach ; 5. Generative – There is active participation at all levels of workers. Safety is considered an integral part of business (Hudson's, 2006).

METHODS

The research uses a mixed method (quantitative and qualitative) with the concurrent model method (mixed combination), namely the concurrent triangulation model (a balanced mix of quantitative and qualitative). which integrates quantitative and qualitative methodologies in one research design. The relationship studied is the influence of safety climate, situational safety management and safety behavior on increasing safety culture. Research goes through the stages of identification, description, classification, modification (reconstruction), analysis, and interpretation (validation and verification). The stages carried out in the research include literature study/preliminary study (literature), secondary data collection, hypothesis determination, primary data collection, interpretation, analysis. Method triangulation: using several researchers in data collection or using multiple analyzes in the process of data analysis and interpretation. Methods of data collection were conducted through In-depth interviews, observation, focus group discussions (FGD). To increase the credibility of research findings, the researchers conducted several triangulation methods, including researcher triangulation. Triangulation of researchers was carried out by comparing the results of data collection from several groups of researchers.

RESULT AND DISCUSSION

Data Analysis

Quantitative Data Analysis. Data analysis was carried out by means of an instrument test with a normality test to test whether the regression model of the independent and dependent variables had a normal distribution or not. A good regression model is one that has a normal or close to normal data distribution. Researchers need to develop research instruments before they are used for data collection to be tested for validity and reliability first, so that the data obtained are valid and reliable. After the sample is determined and the instrument has been tested for validity and reliability, the next step is to collect data on a predetermined sample. After the data is collected the data is analyzed. The analysis is directed to answer the problem formulation and hypotheses that have been formulated.

Safety climate

Table 1. Safety Climate Average

No	Indicator	Mean	Category
1.	Management commitment (leadership)	88,58	Very Good
2.	Safety communication	79,78	Very Good
3.	Rules and procedures (regulations)	72,53	Good
4.	Supportive environment	61,88	Good
5.	Accountability/ Personal involvement (participation)	76.08	Very Good
6.	Safety training	81,32	Very Good
7.	Policy	74,07	Good
	Safety climate	76,32	Very Good

The table above shows the average value of the safety climate in the very good category, the 7 (seven) indicators of Commitment (88.58%), Communication (79.78%), Personal Accountability (76.08%), and Training (81 .32%), very good category, for Policy (74.07%), Regulations and procedures (72.53%), and supportive environment (61.88%) in the good category.

Situational (Safety Management)

The primary data in the form of a situational questionnaire has 33 questions which are grouped into 3 (three) indicators, namely regulation, leadership, and risk management. The results of the situational analysis showed the following data:

Table 2. Situational (Safety Management) Average

No	Indicator	Mean (%)	Category
1.	Regulation	83,64	Very Good
2.	Leadership	73,00	Good

3.	Risk Management	89,00	Very Good
	Situational	81,88	Very Good

The table above shows the situational average value in the very good category (81.88%). Regulatory indicators are in very good category (83.64%), leadership indicators are in very good category (73.00%), and risk management indicators are in very good category (89.00%).

Safety Behaviour

Primary data in the form of a Safety Behavior questionnaire has 21 questions which are grouped into 2 (two) indicators, namely safety compliance and safety participation. The results of the analysis of the safety climate questionnaire from the four work areas showed the following data:

Table 3. Safety Behavior Average

No	Indicator	Mean (%)	Category
1.	Safety compliance	61,11	Good
2.	Safety participation	86,26	Very Good
	Safety Behaviour	73,68	Good

The table above shows the average value of Safety Behavior in the very good category (73.68%). The safety compliance indicator in the very good category (61.11%). Meanwhile, the safety participation indicator in the very good category (86.26%)

Organizational communication

Primary data in the form of a questionnaire Organizational communication covering the dimensions of communication climate and communication satisfaction has 28 questions. The results of the analysis of the showed the following data:

Table 4. Organizational Communication Average

No	Indicator	Mean	Category
1.	Communication Climate	73,08	Good
2.	Communication Satisfaction	78,39	Good
	Organizational Communication	75,07	Good

The table above shows the average value of Organizational Communication in the good category (75.07%). The communication climate indicator is in the good category (73.08%). While the organizational satisfaction indicator is in the good category (78.39%).

Secondary Data Measurement Results

Secondary data can play a role in helping uncover the expected data and help provide information or complementary data as a comparison material if there are incomplete data from the results of in-depth interviews, FGDs;

Primary Data Measurement Results

Data were collected by means of questionnaires/questionnaires, focus group discussions (FGD), in-depth interviews as follows: (a). Questionnaire. The result of primary data measurement is the mean (questionnaire of safety climate, situational, safety behavior). Questionnaires were distributed to respondents who had determined various levels of positions, departments used questionnaires, and a Likert scale as the research instrument. Questionnaires were distributed to all workers in with a minimum number of 30-40 respondents of work area.; (b). Focus Group Discussion (FGD). Researchers also formed a FGD to hold joint discussions with groups (from HSSE and Non HSSE) consisting of 3 levels. 1. Top Management: Director, Vice President and Senior Manager; 2. Middle Management: General Manager, Manager and Field Manager; 3. Low Management : Assistant Manager, Superintendent, Specialist (Experts). The FGD participants were attended by 3-5 people who were representatives of the departments of both HSSE and Non-HSSE Discussions on research topics to find out the views, understandings or information of these workers as relevant informants who would represent the population of permanent workers in various positions, departments / part, contract workers; (c). In-depth Interview is one of the data collection techniques by asking questions to respondents. With advances in technology, interviews can now be done via WA, telephone or video calls. Researchers want to know the experience or opinion of respondents / informants who have been determined. The interview participants were attended by 3 -5 people who were representatives levels of the Top Management, Middle Management, Low Management work area. Interviews were conducted with certain individuals to obtain data or information about problems related to problems in the field related to the formulation of research problems to certain respondents who had been selected according

to the research needs of National Oil Industry both permanent workers and contract workers.

The safety climate indicators are as follows:

Primary data in the form of a safety climate questionnaire has 82 questions which are grouped into 7 (seven) indicators, The results of the analysis of the safety climate questionnaire which included 162 respondents showed the following data: 1. Management Commitment (Leadership). In collecting primary data from the working area for the results the average value (mean) of the leadership indicators was 88.56% and included in the very good category (range 75-100%); 2. Communication. data collection for the results of the questionnaire with 162 respondents, the average value (mean) of the communication indicator was 79.78% and included in the very good category (75-100%); 3. Rules and Procedures. In collecting primary data from the working area the results of the questionnaire with 162 respondents, the average value (mean) of the indicators of regulations and procedures was 72.53% and included in the good category (50 - 75%) ; 4. Work Environment. In data collection from the working area for the results of the questionnaire with 162 respondents, the average value (mean) of the indicators of a supportive work environment was 61.88% and included in the good category (range 50-75%).; 5. Personal Accountability. In primary data collection from the working area for the results of the questionnaire with 162 respondents, the average value (mean) of the indicators of personal involvement / personal accountability was 76.08% and included in the very good category (75-100%); 6. Policy. In primary data collection from the working area for the results of the questionnaire with 162 respondents, the average value (mean) of the policy indicators was 74.07% and included in the good category (50 % - 75 %); 7. Training. In collecting data for the results of the questionnaire with 162 respondents, the average value (mean) of the training indicators was 81.32% and included in the very good category (75 -100%).

Situational Indicators

Situational indicators have 3 (three) indicators as follows: 1. Regulations (Rules and Procedures). In collecting primary data from the 3. working area for the results of the questionnaire with 162 respondents, the average value (mean) of risk management indicators was 83.64% and included in the very good category (75 -100%). shows indicators that have a significant effect on the maturity of safety culture.; 2. Management Commitment indicator the average value (mean) of the indicator of 73.00% and included in the good category (50 -75%).; 3. Risk management indicator the average value (mean) of the risk indicators was 89.00% and included in the very good category (75-100%).

Safety Behavior Indicators

Safety Behavior Indicators have 2 (two) indicators as follows:

1. Safety Compliance. In primary data collection from the 3 working area for the results of the questionnaire with 162 respondents, the average value (mean) of the compliance indicator was (61.11%) and was included in the good category (50 -75%).
2. Safety Participation. the average value (mean) of the compliance indicator was (86.26%) and was included in the very good category (75-100%).

Organizational Communication

(a) Communication Climate

From the results of primary data in the form of a questionnaire shows the average value (mean) of the communication climate indicators (73,08%) including the good category. As for the results of the FGD and WM, the communication climate indicator is an important indicator for running a safety culture program. In corporate organizational communication, the communication climate associated with communication satisfaction in the field with an atmosphere of subordinates who are less satisfied with communication with their superiors, or the acceptance of subordinates to their superiors' messages, due to lack of knowledge and education also affects the reception of information, there are disturbances and obstacles to the delivery of messages from the sender to the sender. recipients, a lack of communication climate so that they feel less satisfied in communicating between superiors and subordinates.

(b) Communication Satisfaction

From the results of primary data in the form of a questionnaire In collecting primary data from the work area for the results of the questionnaire, the average value (mean) of the Communication

Satisfaction indicator (78,39%) was included in the good category. The communication process can affect workers' communication satisfaction or not. In the communication of the organization there must be tangible evidence of a good listening process, feedback mechanism, information and discussion about how the organization carries out its activities. Communication within the organization can take place effectively and be able to provide communication satisfaction for communicants and communicators. Satisfaction describes an individual concept and a micro concept, as well as an evaluation of an affective internal state, also describes an individual's affective reaction to the desired results that come from communication that occurs in the organization. The communication process with safety meetings, and others greatly affects worker satisfaction. In the communication of the organization there must be tangible evidence of a good listening process, feedback mechanism, information and discussion about how the organization carries out its activities. Thus communication within the organization can take place effectively and be able to provide communication satisfaction for communicants and communicators.

The Communication Model Used By Researchers Is Model. Communication Model For Increasing Work Safety Culture (MODEL-SIKATBUKA)

(MODEL-SIKATBUKA) is intended for all areas of National oil, to minimize miscommunication, which sees the organizational communication process in several field units of National oil is that the communication work atmosphere is still not effective, horizontal and vertical communication, between leaders and subordinates is still not well established and has an impact on misunderstandings at work, there is still a lack of openness between leaders/supervisors and subordinates in. In carrying out the work, leaders/ supervisors sometimes do not know and understand how to make the sender's message conveyed can be understood by their subordinates (recipients), and subordinates are sometimes afraid to give advice or opinions to the leadership, which has an impact on the occurrence of work accidents because the company involves many people both from superiors (Supervisor) and subordinates (operators/ frontliners). In the end, there is a miscommunication which will have an impact on the low completion of the company's internal work and will again affect the company's business processes. In several field area units, among others, Job Factors (job factors) related to communication and information problems, work standards/ SOPs, unclear and inadequate command and supervisory structures, National oil requires a communication process in planning that uses appropriate communication models in communicating, where good communication between employees must be interconnected. In designing and implementing a successful occupational safety and health communication, an appropriate communication model is needed that can be implemented to improve the safety culture. Communication model interaction with both parties that encode (encode), interpret (interpret), re-encode (decode), transmit (transmit), and receive signals (signal), see feedback and continuous loop to share information. Communication factors are concerned with the role of communication climate, communication satisfaction, ways of communicating in problem-solving and the use of communication media within the organization. After describing the various problems above, it comes to a question formulation of the problem, namely whether there is a relationship between organizational communication climate, organizational communication satisfaction and organizational communication that can affect the improvement of Safety Culture.

CONCLUSION

Communication models or systems for improving safety culture have a very important role. If the communication process runs effectively it will assist in the implementation of internal and external communication. Based on the results of this study, it can be concluded several things as follows:

1. The concept of a system consisting of system components, system processes and system properties has not been fully effective, there is still a miscommunication of the communication process where as in system components where systems and subsystems are represented by superiors or leaders, so the role of negative feedback is dominant, feedback Positive feedback that functions to change system function through development and growth rarely occurs and is less than optimal, resulting in also being less responsive to environmental changes. So it is necessary to find a new communication model, namely (Model-SIKATBUKA) which is an expected model that can accommodate the interests of superiors/leaders and subordinates as well as stakeholders, the

surrounding community in resolving aspects of communication within National Oil and Gas. This model will also become a standard in the communication system in implementation in National Oil and Gas and can also function as a detector that can detect problems related to communication in the communication system process that appears in the field.

2. The organizational communication process of internal and external communication patterns to improve safety culture (safety culture) at National Oil has not been fully effective, due to the existence of obstacles or miscommunication constraints in the implementation of the communication process of the internal and external communication patterns. As well as feedback from subordinates to superiors which should be used as a media tool to carry out evaluations which are expected to get optimal evaluation results so that the settlement can be followed up. Thus, the solution to the problems found in the field, which becomes the justification is a short-term solution, this is due to the tendency of negative feedback (corrective feedback) which serves to maintain or maintain a stable system.
3. There is a positive and significant relationship. communication climate (73.08% is in the good category) to organizational communication (75.07 is in the good category), for improving the safety culture at National Oil and Gas.
4. There is a positive and significant relationship with communication satisfaction (78,38)% in the good category) on organizational communication (75, 07 in the good category) for improving the safety culture at National Oil and Gas
5. a. There is a positive and significant relationship between safety climate. Safety Climate (76, 32%) is in the good category to Safety Culture (86, 77% is in the very good category);
b. Situational (safety management) category (81.88%) is in the very good category, there is a positive and significant relationship to Safety Culture (86, 77% is in the very good category);
c. Safety Behavior category (73,64%) is in the good category. There is a positive and significant relationship with Safety Culture (86, 77%) in the very good category.

Based on the conclusions above, it is necessary to add to the concept of the communication system, namely the analysis of the concept of the communication system which consists of monitoring and evaluation and follow up. where the concept of this addition functions as a detector that can detect problems, obstacles or communication constraints in the field. Thus, successful and effective communication comes from the implementation of the communication process, the workers involved will improve their communication skills if they follow the communication process, and away from barriers or obstacles to communication and the ongoing communication process will become an evaluation tool in the implementation of improving safety culture. (safety culture). Interactions between individual superiors and subordinates in the organization that can lead to an interdependence relationship between superiors and subordinates in the organization. So this can create a communication network within the organization to form a conducive communication climate and organizational communication satisfaction. The communication factor is a concern regarding the role of communication climate, communication satisfaction, ways of communicating in problem solving and the use of communication media within the organization, so that the relationship between organizational communication climate and communication satisfaction can affect the improvement of safety culture.

REFERENCES

- Abbas Tashakkori, Charles Teddlie. (2010). *Mixed Methodology and Qualitative Approach Quantitative*, Student Library, Yogyakarta.
- Andi Mirza Ronda, *Contemporary Interpretation of Communication Science (Theoretical Review, Epistemology, Aksoiology*, 2018, Tangerang: Indigo Media
- Arnie Muhammad. (2015). *Organizational Communication*, Jakarta, PT. Earth Literature
- Craig, Robert T, Muller, Heidi L, *Theorizing Communications*, 2007, USA, Sage Publications, Inc.
- Cresswell, JW (1994), *Research design approach to qualitative, quantitative and Mixed*, 2nd edition, Yogyakarta, Pustaka Pelajar.
- Deddy Mulyana, MA, PhD .(2011). *Ilmu Komunikasi suatu Pengantar*, PT, Remaja Rosda karya Bandung.
- Indonesian Ministry of Health. 2009. *Health Profile of Indonesia*. Jakarta. Department of the Republic of Indonesia
- Ginting, 2013. *Changes in Safety 8. Culture in Industry*. Jakarta: World-Class Quality Management
- Gunawan. 2013. *Safety Leadership*. Jakarta: Dian Rakyat

- Goldhaber, Gerald. M (1993), *Organizational Communication*, sixth edition, State University of New York : McGraw Hill, USA.
- Human Engineering. (2005). A review of safety culture and safety climate literature for the development of the safety culture inspection toolkit. *Health and Safety Executive*, 1–42.
- Katherine Miller, 2015, *Organizational Communication, Approaches and Processes*, sixth edition, Texas A & M University
- Kriyantono, Rachmat, *Practical Techniques for Communication Research*, 2006, Jakarta, Kencana
- Liliweri, Alo, *Social Science Research Paradigm*, 2018, Yogyakarta, Student Library
- Little John, Karen Foss. (2016), *Encyclopedia of Communication Theory*, Volume 1, volume 2, Jakarta: Kencana.
- Neuman, W. Lawrence. (2013), *Social research methods: Qualitative and Quantitative Approaches*, University of Wisconsin at Whitewater
- Orang Uchjana Effendy, *Communication Science Theory and Practice*, (Bandung: PT. Teen Rosdakarya, 2007), p. 40.
- Robert T Craig, Heidi L Muller. (2007), *Theorizing Communication, Readings Across Tradition*, Sage Publications, Inc., Thousand Oaks, California
- Ramli, Soehatman. *Practical Guidelines for Risk Management in OHS Perspective*, OHS Risk Management, 2009, Jakarta, Dian Rakyat, Jakarta
- Sugiyono and Puji Lestari, 2021, *Communication research methods (Quantitative, Qualitative, Text Analysis, How to Write articles for National and international journals)*, Bandung, Alfabeta,
- W. Lawrence NEUMAN, *Social Research Methodology: Qualitative and Quantitative Approaches*, 7th edition, 2013, Boston, MA02116
- Wayne Pace & Don F. Faules , *Organizational Communication, strategies to improve company performance*, editor Deddy Mulyana, MA, PhD, Bandung , edition 8, June 2013, PT. Youth Rosda