

Behavioural Economics of Safety Culture Management in Companies

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ABSTRACT

Most companies care for money and profits more than the safety of their human resources. Why companies' managements and employers do not decide to spend on safety cultural aspects, as because they are not concerned or less sensitive towards unsafe way of working leading to disaster, incidents, family suffering, impact on new generations, gas leakages or they are not aware that the benefits of safety implementation in any company, small or big, would definitely outweigh the monetary gains of not implementing it. This article discusses these factors based on observations of 309 industry professionals, and makes recommendations for HSE policy and planning towards a culture of safe businesses caring for human cost or losses. While considering the economics of safety management approach, it is important to understand as to why companies stop and refresh their actions for programs leading to longterm safety culture. Though, the slogan seems to have changed, i.e. behaviour first, as we used to say, safety first. However, a large number of Indian companies (90%) are still not able or willing to decide over safety culture management for a variety of reasons as discussed herein. This paper adds an in-depth sense of qualitative data on the topic.

Keywords: Behaviour, Safety, Culture, BBS, Management, Companies, Economics, India

INTRODUCTION

Profits should not come at the cost of employee's health and safety. Paul O'Neill knew that safety is not an expense but an opportunity to increase profit and productivity, reduce medical and compensation costs

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and improve the bottom line (Berthold, 2016). Benefits accruing from a safe work environment include reduction in lost employee hour, decrease in hospital costs, reduced sick leave, down-trend in pollution costs, low property damages, and significant reduction in insurance premiums which ultimately result in higher productivity (Ekenedo, 2013).

It is debated over the decades that the wilful violations of systems rules and procedures can be explained as non-adherence of some propositions of behavioural economics by the system designers and managers: first, unclear rules; second, the delayed or ambiguous feedback; and third, is the conflicts between high and low level safety commitments (Battmann & Klumb, 1993).

The theoretical framework of the safety culture is that it reflects the way people think and behave in relation to safety and a proactive mechanism to improving occupational safety by targeting the safety issues which is best achieved by focusing on the company's safety systems and their people's safe behaviours. There are multiple definitions on the safety culture (Vu & De Cieri, 2014). The American Petroleum Institute (2015) adopted that the existing safety culture is reflected in terms of the employees' perceptions, their attitudes toward organisational safety goals, their' daily safe behaviour; and the company's safety systems to support the safe behaviours (Cooper, 2018). The Journal of Accounting and Economics found that U.S. companies managers facing market pressures to meet earnings expectations may risk the health and safety of workers to please investors (Smith, 2017). The ILO has adopted more than forty standards dealing with occupational safety and health, that provide tools for governments, employers and workers to establish practices to ensure maximum safety at work. Yet for millions of workers the reality is very different (ILO, 2021).

Behavioural economics is the study of how psychological, social, and emotional factors override economic value when companies or employers make decisions. Behavioural economics can help us reveal ways to control the organizational biases and cognitive limitations or ethically influence them to help drive the enterprise value (Deloitte, 2021).

According to a Chief General Manager of ONGC, the benefits of behavioural safety culture implementation in any company, small or big, would definitely outweigh the monetary gains of not implementing it. There is an increase in productivity and monetary gains of managing safe behaviour, and opposite is also true in case of occurrence of disasters due

to unsafe way of working such as fire incidents, rail or road accident, family suffering, gas leak (Personal Communication).

The author provides insights to achieve an organisational safety culture excellence based on the research evidence and his field experience gathered over the past 36 years in different industrial sectors and countries. This paper explores the role of behavioural economics in safety management to make decisions more profitable by discussing possible issues on perception of at-risk behaviours.

LITERATURE REVIEW

Did you know that the International Labor Organization regards a safe working environment as a human right? Providing decent working conditions is also amongst one of the 17 Sustainable Development Goals (SDG). Economic benefits of health and safety management are huge, so much so that for every Euro invested in OSH, there is a return of €2.2 Euros (Tanya, 2021).

Does safety culture create a base to an economic value for an organisation? Researches over the past years indicate that it is ‘money’ of the behavioural economics that provide the answer, along with actionable insights for employers and policymakers as they negotiate between the safety management and profits (Jaggi, 2021). Insights from behavioural science helps understand how companies make financial decisions for health, safety and environment (HSE). Hence, behavioural economics is central to a firm’s actions for implementation of long term safety culture (Dash, 2020).

Behavioural economics relates to the economic decision-making processes of individuals and institutions (Academy 4SC, 2021). Safety culture is about an organisation’s values, beliefs, norms, practices, competencies and behaviours related to HSE. You can influence organisations via the people within them through organisational procedures (Drummond and Pietikainen 2021).

International research on the return on investments in prevention proves that every unit invested in safety and health generates a potential benefit of more than two units in positive economic effects. Improving safety and health in the enterprise does not necessarily mean to increase spending (DGUV, 2021).

The COVID-19 situation highlights the significance of balancing the economy with safety and health, considering the interdependencies between safety and micro-economics, for supporting this kind of decision-making in terms of cost-benefit analysis and cost-effectiveness analysis in safety culture management, and a little attention has been paid to these fundamental issues and the methodologies in behavioural safety economics (Chao et al., 2021).

The COVID-19 pandemic has shown how vital occupational health and safety is for protecting employees' health, for the smooth functioning of our societies, and for the economic and social activities. The European Commission is renewing its commitment to update occupational safety and health rules by adopting the EU strategic framework on health and safety at work 2021-2027. It sets out the actions required to improve the workers' health and safety over the next few years (European Commission, 2021).

RESEARCH METHODOLOGY

Research Objectives

Review of literature revealed that the behavioural economics of safety culture management is a relevant, critical and major concern for companies. In this direction, it is good idea to explore various learnings of field professionals especially during COVID-19 scenario when economic spending on safety is a real concern, hence research objectives were set:

- To explore whether safety culture creates a base to an economic value for an organisation?
- Why do companies fail to decide to spend basic expenditures for establishing safety culture?
- To explore various aspects of behavioural economics of safety culture management of companies, and formulate recommendations.

Sample

309 HSE, medical, education, management, mental health professionals. For this research a total of 500 people were approached out of which 309 completed an action field survey with the researcher. These research

participants had been implementing behavioural safety culture at their work sites. The research participants included, the CEO, Directors, Managers, Heads of Departments, Safety Professionals belonging to the public and private industrial sectors, including chemicals, construction, gas, power and steel, across Indian locations.

Types of Data and Data Collection Method

Both primary data (interviews, discussions) and secondary data (incident and accident rates) were collected. Interviews based on open-ended questions and personal in-depth discussions were conducted through remote data collection techniques over 2-months (during June-July 2021) from diverse locations and organisations in India. The sampling method used was a non-random convenience sampling. Participants were selected from the researcher's contact list, invited by WhatsApp, and email to complete the online survey.

Research Design

This is a concept building, innovative and exploratory research design at the behest and involvement of field professionals as being study participants, using qualitative descriptive framework.

Data Analysis Techniques

This study is part of an ongoing interdisciplinary intervention of behavioural science, management and industrial safety disciplines, and part of a national longitudinal action survey in India. Crucial element in this research was data collection conducted by means of controlled interviews and questionnaire surveys in these organizations. Their responses to questions related to behavioural economics and safety cultural aspects were collated and thematic data analysis was used to reflect on the findings.

List of 10 themes emerged from the qualitative data are discussed below:

- Perspective of safety culture management in industries.

- Bleak future of businesses if they are not establishing longterm supportive safety culture.
- It doesn't support zero-harm policy, if you don't measure at-risk behaviours.
- Basic reasons that the Indian companies are not ready to spend on safety.
- Increase in participation at bottom line can be linked to a good safety culture.
- Prime challenge in implementation of behavioural safety culture program.
- Positive safety culture management ensures that the businesses are making sustainable profits.
- BBS culture is a business standard.
- Organizations who embrace behaviour safety approach, can ensure that no-one is injured.
- Economics of behavioural safety culture implementation.

DISCUSSION

In order to avoid the expensive issues of incidents and accidents, it's time for a culture change. A safety-first culture is an emerging trend in several industries. It's critical decision-making on this unique moment in business (Brown, 2020). This paper provided below the myriad researched information on why to decide and how to implement a long term workplace safety culture that begins with employer health and safety education and the provision of safe, healthy work practices in the community, government and private industry workplaces.

The National Safety Day India 2021 Campaign emphasised at renewing the commitment of employees and general public to work safely throughout the year (safetyrisk.net, 2021). The basic query remains for HSE professionals that the risks are everywhere, so how much safety is safe? Towards this, Table 1 reveals the multi-pronged perspective of safety culture management in industries as described by the study participants.

Table 1: Risks are Everywhere. So how much Safety is Safe? 92% of Study Participants Find that:

- It's like for prosperity how much money is enough, It's relative.
- It's an awareness of individual towards his life.
- 100% as long as assurance of not causing any harm to any living creature.
- How much safe is the existing safety system?
- Safety to be adhered "as low as reasonably practicable" or as per the standards of specific requirement.
- There is no limit for the betterment, so go with basic first.
- Nothing less than 100 percent, it has to be always 100 percent.
- More safety still falls short, No one should get injured.
- If a person feel himself safe in all aspects and in all conditions, that will be optimal safety.
- Sustainability and climate risk is way forward for safety which is achievable only through BBS which makes safe considering recent code Red for Humanity by UN
- We can't be restricted with measurements. Safety is always alive and It should be 100%.

If companies or their HSE teams are not establishing longterm supportive safety culture at their sites, they seem to have a bleak future of businesses. Though a large number of companies believe in this, yet they do not appear to be acting accordingly. In this regard, it is interesting to understand that the features of companies that do not empower their workforce for performing safety implementation. These organisations are those that were low on the concept of psychological safety for their workforce. That were low on the values of human compassion and empathy. That were low on corporate social responsibility. That were low on corporate care as a core value. That were low on international business operations. That were low on leading indicators but high on lagging indicators. That were high on reactive, and dependent safety culture. That were low on independent and interdependent safety culture. That were low on their leadership safety consciousness. That were low on safety implications on business and employees. These findings provide us a framework for facilitating organisations on performing safety implementation by their workforce. According to ILO (2021b), managing safety and health is an integral part of managing a business to ensure that hazards and risks cannot cause harm to workers.

Further, nearly 84% of this study participants expressed that it doesn't support zero-harm policy, if you don't measure at-risk behaviours at site work areas. If you don't measure, you don't understand it well. Beware, it may give you surprise. Then the question arises, whether a BBS intervention is useful without its measurement aspect. The answer is yes, but it is useful in a limited way, and the risk control is not covered fully, as it is not understood without measurement. Implement a simple measurement system to effectively track the frequency of both safe and at-risk actions employees do during behavioural safety observations (Alcumus eCompliance, 2021).

People should not get injured as because employers do not have safety culture in their eyes or heart. Almost 90% of the study respondents felt that the basic reasons that the Indian companies are not ready to spend on safety are: the ignorance, cost, wrong regulation, misuse of regulation, workers reluctant behaviour. The behaviour and safety both are positively correlated, if one is reduced, other will fall vis-a-vis. If everyone will demonstrate safe behaviour, at all times, probably safety will automatically be taken care including technical safety aspects. If one does the Root Cause Analysis, the underlying cause of safety implementation, is the behaviour of people. Also the companies not willing to spend on safety is due to, the feeling and the perspective of being safe every time is not in their mind and heart. Entrepreneurs haven't been given any feel of being safe. ILO urges better policies to protect workers and businesses, as digital platforms proliferate (ILO, 2021c).

The study respondents (78%) also emphasised that in quantitative terms, increase in participation at bottom line can be linked to a good safety culture. Concept to understand is that risk is part of our daily life, but accidents need not be. This is why, precisely, the behavioural implementation is recommended in all world safety standards (Kaila, 2019). The National Safety Council estimated that work-related deaths and injuries cost the nation, employers, and individuals \$151 billion in 2016. Employers that implement effective OSH management systems significantly reduce injuries and illnesses and reduce the costs associated with these injuries and illnesses (Occupational Safety and Health Administration [OSHA], 2021).

The prime challenge in implementation of behavioural safety culture program is the involvement of all employees including contract employees which can only be possible once fear from their minds be removed for

carrying out spot-correction of at-risk behaviours on the shop floor. In other words, a buy-in by each employee is paramount for successful implementation. This can be demonstrated by head of the departments and other senior leadership team through their visible actions reinforcing safe behaviours and reducing at-risk behaviours (Cooper, 2020). It is pertinent to regularly review the BBS checklist for inclusion of new risks such as road safety, COVID-19 appropriate behaviours and emotional health care. Employees should be encouraged for openly reporting of at-risk behaviours without any fear with 'No Blame, No Fault, No Name' way with prime objective of on-the-spot behaviour correction to reduce the risk of accident or incident as reported by 86% of the study respondents.

The principle of any positive safety culture management ensures that the businesses are making sustainable profits. Safety culture is sum of beliefs, attitudes and practices being followed in various activities of business. The 88% of study respondents perceived that a strong safety culture ensures everyone is empowered and feels responsible for safety and pursues it on daily basis by carrying out spot correction of at-risk behaviours without any fear with prime objective of Zero Harm to anyone. When an employee feels valued, listened to and truly cared for, his or her outlook towards the organization is different with high morale and full of positivity in all other aspects too. This puts onus on the senior management to create an environment in which employees feels comfortable speaking up when they see safety hazards or at-risk behaviours (Michie, 2020). Thus, making safety a way of life.

Management of psychosocial risks, promoting well-being at work and behaviour based safety (BBS) culture is a business standard (ISO45003, 2021). If implementing incorrectly, BBS approach can backfire negative experiences, like stopping or refreshing this program. The challenges of BBS culture have been addressed actively for gaining results as the experts feel that it really stood the test of time, almost 50 years, dealing with critical at-risk behaviours, implementing it correctly. Managing behavioural safety can directly increase productivity and can foster better employees engagement which are the indirect benefits as reported by 77% of the study respondents. Numerous case studies exist revealing the positive relationship between safety and productivity, which can be applied to any aspect of safety for justifying investments to reduce the probability and severity of accidents, and logically address questions such as: how do the managers convince the plant manager to spend money from the annual budget for safety improvements? How does the plant

manager influences their corporate to prioritize safety improvements? (Swinderman, 2018).

The study participants (89%) also expressed that it has been proven that organisations who implement behaviour safety approach, ensure that no-one is injured. By taking their health and safety to a different level they are able to add a real value into the organisation. But many who start the behavioural safety journey do not complete it, due to inadequate program structure, insufficient training or as the processes becoming too routine. Implementation of a safe culture comes not only with a change in behaviour but also with a change in the mindset. Krishna Rao, a veteran safety professional stated that advertising safety has become like role modelling. For every award won for excellence in safety is only a step towards excellence in safety, but winning it just a year will not reflect good safety systems rather maintaining it throughout and improving continually shall be the Goal of Zero Harm (Forum of Behavioural Safety, 2020).

Economics of behavioural safety culture implementation in companies is expressed by 82% of the study participants in terms of:

- Unsafe way of working will lead to disaster. Any disaster is beyond economic valuation.
- Road accidents.
- Rail accidents.
- Family suffering.
- Impact on new generations.
- Most of fire incidents, gas leakage of Bhopal tragedy.

MANAGERIAL IMPLICATIONS

COVID-19 has deeply challenged the Occupational Safety and Health Administration adhering to the basic foundational health, safety, and environmental requirements. So far the industry prioritized the health and safety of its workers, now companies are focusing on their expectations as well (Duane et al., 2020). Supportive Safety Culture is one of the essential pillars for building a progressive and sustainable organisation. Every individual's own behaviours as safety ambassadors, collaboration and engagement with all levels, encouragement, rewards and recognition for

right safety behaviours make a big contribution towards developing and implementing a long term safety culture. To embed a sustainable safety culture, companies must overcome the mind-sets that underlie unsafe behaviours (Hortense et al., 2019).

According to the Lorraine M. Martin, the President and CEO of NSC, “Business leaders must support safety now more than ever, I appreciate your constant dedication to safety” (National Safety Council, 2021). A second of risk is sufficient for an incident, or a second of human care is sufficient for spot-correction of that risk. You may choose, or lose, be quick in deciding. A one-minute message of the MD/CEO must go to employees each month on the relevance of 5-minute daily ‘at-risk behaviours’ observation care for spot-correction’ by each employee. It helps pushing longterm safety culture at site.

Culture is the key Driver. If a person has a positive attitude and a good culture in the organisation, then it’s easy to implement any policy or new thought. We need to work a lot in this regard. There is a strong hope of establishing principles of long term behavioural safety culture by the industry leaders. Their will and sustained actions, in this regard, can surely control incidents and the related loss of lives and the business. Economics and Country Risk insights and analysis provide a clear 360 degree perspective on what concerns most to the businesses allowing to bring opportunities and risks into focus, as global economic growth rests largely on COVID-19 vaccination progress reflecting safety behaviours of all involved (Johnson, 2021).

Measuring BBS Cultural System Efficiency as a Core Value of Corporates based on 25 Points: GAIL advisor S. P. Garg, stated that now “Safety” is considered as one of the core values of organisations. “Behaviour” is getting more attention, as it plays important role in developing organisations culture. Safe behaviour and attitude can help come out of the “chalta hai culture”. This index score (see annexure) of measuring BBS system efficiency as a core value of corporates, indicate how much organisational time is spent on safety functions to build safety culture, not how much money is spent. Surprisingly, Safety time of an organisation is one of the best leading indicator in developing sustainable safety culture, not the safety budget. Hence if your score on the index

below is increasing, it means clearly that safety is a core value and everyone at work cares for safety behaviour of each other around. Planned intervention of behaviour-based safety (BBS) helps organisations improve their safety time arithmetic (Kaila, 2020).

Fortunately, it is still the ‘total time spent on safety by each member in an organisation by way of daily observations and spot-correction of at-risk behaviours’, is the “Best Leading Indicator”, and not how much money is spent on safety. Hence what really matters is not merely economics but the social sciences approach of safety culture management. But the critical question is, are companies ready to organise for this safety time? Largely, no, as time is money for most companies. They think of only minimum to minimum safety implementation. Thus, economics tend to override safety as the leaders’ sensitivity towards humanity remains low. Employees, employers, managements, and all need to understand that without total safety culture, there would be no enterprise’s survival in future times to come. Though the safety training implementation in low and middle income enterprises is difficult, yet it is possible to facilitate it through the team-based internal mentors and coaches (Penkunas et al., 2021).

In overall, Indian companies do not seem to be realising that spending on safety is an investment not expenditure, which deserves a national level debate in public interest. Also, Nature is the mightiest teacher, the world could ever have in support of safety, health and environment, like COVID-19. The same seems true for industry, if leaders fail in their HSE duties to inculcate safety culture for their workforces and workplaces, incidents teach in a harder way. Avoiding to create a proactive workplace safety culture is sure to result in heavy costs down the road (Lombardo, 2020).

Finally, to deal more effectively with various aspects of the behavioural economics of safety culture management of companies, the summary of findings recommend to address the list of following 20 issues mentioned in Table 2.

Table 2: Behavioural Economics Aspects of Safety Culture Management in Companies to Consider

- Unsafe way of working will lead to disaster. Safety culture is a business imperative.
- Reasons that companies do not spend on safety are: ignorance, cost, and misuse of regulations.
- Increase in participation at bottom line can be linked to a good safety culture.
- Organisations that implement behaviour safety approach, can ensure that no one is injured or made ill through their work.
- Applying behavioural approach, for safe business operations, industries have to decide, safety first or behaviour first, choose or lose.
- Behavioural safety culture is a tool which can be successfully used to mitigate risks.
- Extend behavioural safety culture program to employees families and other key stakeholders.
- Annual Behavioural Safety Culture Reviews are must. Culture is the key Driver.
- Continually spreading the message of behavioural safety culture to keep the industry moving.
- Supportive Safety Culture is an essential pillar for building a progressive and sustainable organisation.
- Business leaders must support safety now more than ever.
- Measure behavioural safety culture System Efficiency as a Core Value of Corporates.
- Total time spent on safety by each member in an organisation by way of daily observations and spot-correction of at-risk behaviours is the Best Leading Indicator.
- People need to reinforce about what is hazard and consequences.
- In India money plays first, then human life. Life has no value.
- HSE is shown case ornaments for the corporate.
- Top management people are not aware about safety. They are only trained to do the business.
- There is no minister at the Centre and State to monitor the implementation.
- Safety should be a compulsory subject in the primary school to 12th class.
- Companies are not realising that spending on safety is an investment not expenditure.

CONCLUSION

In the past 18 months or more, we all have witnessed direct and indirect pandemic effect jeopardizing many lives with its devastating and painful impacts. It is important to note that Covid appropriate behaviour was a key in controlling the spread of pandemic. However due to lack of awareness among majority of the urban and sub-urban communities, the spread was uncontrollable beyond anyone's imagination. Unsafe behaviours could be one of the reasons for wide spread of infection even to rural areas during the second wave. This could have been avoided or the extent of damage would have been reduced if people would have behaved responsibly following various Covid appropriate behaviours to mitigate its impacts (Nature Human Behaviour, 2020). Applying behavioural approach for safe business operations, industries have to decide, safety first or behaviour first, choose or lose.

A strong safety culture begins with visible management's commitment and highly engaged and empowered employees at all levels. This results in happy stakeholders due to reduced costs, increased plant reliability, reduced maintenance and better product quality besides benefits of motivated employees and happy customers making it more sustainable and profitable business. The 81% of study participants also stated that behavioural safety culture is a tool which can be successfully used to mitigate risks arising out of occupational health and safety as well as process safety. This behavioural science approach is currently being applied successfully in numerous companies worldwide (Geller, 2001).

Furthermore, there is need to extend behavioural safety culture program to employees families and other key stakeholders of our society especially children and youngsters. This could only be achieved through intervention of educational institutions and public forums raising awareness on behavioural safety culture to make it a way of life. One could imagine huge benefits of reducing road accidents; controlling pandemic and reducing industrial accidents etc. which ultimately would help in creating a happy society. Tetzlaff et al. (2021) cautioned that unless efforts are made to understand and change the cultural drivers and share these findings within and across industries, the similar incidents are likely to continue to occur.

Occupational health and safety (OSH) management can and should be viewed in monetary terms as part of a business system (Eastern Kentucky University, 2021). Some challenges or questions on safety culture economics are:

Visible or lack of management support;

Leaders don't walk their talks at the site;

Convincing the unit level management why BBS is important for company's business;

Too much emphasis on at-risk behaviours, not talking safe behaviours. Positive reinforcement or appreciating safe behaviours is many times more effective than merely taking unsafe behaviours towards building longterm safety cultures;

Receptive or resistant employees;

Observations data being shown to all employees to make impact to continue observations;

Barriers to safety, resources, engineering solutions to be addressed, otherwise people understand that BBS is only about talking and not taking actions on the ground;

Focus on 3 or 4 percent of negative people also who don't cooperate as well as positive majority of employees;

Disciplinary action is important if somebody does deliberate violations. Enforcement and reinforcement go together. BBS does not replace other safety systems, rather integrate it all;

Focus on first positive reinforcements for majority of workforce, and enforcement on small number of employees. Reinforcement of positive behaviour pays back better than focusing on at-risk ones;

It helps impacting cultural change quickly in 6 months, sustaining BBS culture would take 3-4 years;

BBS tool is good, depends upon the user companies for its success, as 50% have implemented incorrectly;

It takes time to change negative or resisting people for their involvement. Good to see the reasons why they resisted;

Functioning of steering teams without involving CEO of the organisations;

Making BBS an HODs function;

Emphasising quality of BBS observations;

Linking with KRA of every employee;

Including BBS in vendor terms and conditions;

When monthly BBS review is not regular and feebly conducted by HODs without much involvement, the BBS culture weakens by itself ignoring at-risk behaviours, followed by sudden incidents impacting business and lives. “You May Need To Care”;

Behaviour change is a buzzword every where now. Even driving ESG in businesses requires behaviour change among business leaders setting ESG goals as business goals for a profitable business.

Annual Safety Culture Reviews are crucial for continuous development; these are often not addressed actively by managers. Importantly, change in hierarchy of safety controls at sites is very important; this also is not emphasized so much by HODs. Most important, 5-minutes of safety-time each day each employee, to be fixed as a SOP, plays a significant role in developing good safety culture. Performance reviews must be used as part of safety culture for maintaining a safe work environment (Hestbak, 2019).

As per President of the chemical plants, Focus on continually spreading the message of behavioural safety culture to keep the industry moving. There is nothing more precious than human life. In the industry, if we truly believe in the adage of Safety First, it has to become a daily ritual with empathy, consideration, alertness and anticipation. To ensure observations and spot-corrections for Zero unsafe behaviour, these are the crystallized learnings that has been imparting with a BBS missionary zeal, impacting all the practitioners in the industry continually raising the bar of safety. Whether a fire accident or a national disaster, behavioural safety culture has enriched lives by proactive prevention (Personal Communication, 2021). It's truly a noble initiative towards the safety of industry and people working there. Organisational antecedents are a kind of prop which works as a support route in weakening the existing safety culture. There should be only a Go or No-Go treatment in behaviour at the workplace. The No-Go gate should bear a penal action depending upon the potential of violations. Leaning on antecedents in explaining an at-risk behaviour allows build up of probabilities for a serious consequences.

Developing an interdependent safety culture is be on the agenda for forward looking organizations to ensure a long term business sustainability. An organisations' culture is best indicated by the way their workforce behaves when they're away from the workplace. A shared vision of the people of a Zero Harm future would be the bedrock of a safety culture, reflected by the safety beliefs, values, attitudes and reflecting in everyday behaviour. It is important to motivate and engage employees to pursue the behaviours that contribute toward a strong HSE culture (Scace, 2018).

SCOPE OF FUTURE RESEARCH

It's important to remember that poor workplace safety and health costs money. Good OSH is good for business (EU-OSHA, 2021). The industry craves for the social wellbeing. Safety is the core value in the industries of the developed nations. There has been dramatic changes in the benchmarking of the safety statistics from all the developed nations. Similarly, environmental standards are implemented as a disciplinary benchmark. Now due to spread of pandemic COVID-19, OSH standards have been dramatically improved. but Safety is way beyond. It is still starving for the benchmarking excellence. The root cause of every injury caused by incident is behaviour. The fraternity must find metrics to measure the behavioural changes and improvements. This has a cascading effect on environmental health also (Chao et al., 2021). It would be critical to understand the changes in the work conditions, and decide on the corporate practices for safety, health and wellbeing (Glorian et al., 2021). Anticipate, prepare and invest now in resilient occupational safety and health systems (ILO, 2021a). Understanding the top risks in the workplace is the first step in better protecting employees and the bottom line (Liberty Mutual Insurance, 2021).

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ANNEXURE (QUESTIONNAIRE)

(25 points x 4 marks each = 100) (Please give your score very frankly to each item below) . Assign marks between 1 to 4 to each item below as per your own assessment.

1. What is the percentage of shop-floor people doing BBS observations daily for five minutes?
2. What is the percentage of contractors/security staff doing BBS observations daily for five minutes?
3. What is the percentage of managers doing BBS observations daily for five minutes?
4. Is Cultural change from 1st (reactive) to 4th (interdependent) level taking place?
5. Is BBS a part of your EHS policy and annual review?
6. Are observers/departments being recognised/rewarded?
7. What is the percentage of incidents reduction after implementing BBS?
8. Is BBS Goal-setting each month by HODs to down the level happening?
9. Is BBS a part of KPI for departments?
10. What is the percentage of at-risk behaviours overall at each site?
11. Has BBS been included in vendors T&C?
12. Is BBS seen as a business value by top management?
13. Are all barriers in HSE management being spot-corrected by managers?
14. Are top process hazards being corrected?
15. How far business heads involve in BBS?
16. Has BBS been extended to families/residential colonies/communities?
17. Has BBS been extended to surrounding schools/industrial associations?
18. Has BBS been extended to road safety?
19. Has BBS been extended to COVID-19 observations?
20. Has BBS been extended to psychosocial risks as per ISO45003?
21. Has the culture of spot-correction become a way of work life?
22. Has BBS become a big brother safety approach by all?
23. Has HODs become role model for BBS?
24. Has reactive safety culture gone away?
25. Do juniors observe and spot-correct seniors for BBS?

Scoring:

- a. Your total score out of 100:
- b. Your weak areas with less score for improvement:
- c. Your strong areas to sustain BBS: