

REVIEW OF STRATEGIES TO IMPROVE WORKPLACE SAFETY THROUGH ETHICAL CLIMATES

Uthpala Rathnayake* and Gayani Karunasena

Department of Building Economics, University of Moratuwa, Sri Lanka

ABSTRACT

Occupational Health and Safety (OHS) is an important aspect in every type of organisations. Healthy workers are an important asset to the organisation and safety issues causes various losses to the organisation. Therefore, it is vital to formulate strategies to improve the occupational health and safety in every type of organisations.

It has been found out that 80% of the workplace accidents are due to employee behaviours. Moreover, according to past researches, ethical climate of the organisation affects the individual employee behaviours. Ethical climate refers to the shared perceptions of organisational members regarding what is considered correct behaviour in the organisation and how the organisation deals with ethical issues. Ethical climate guides the employees to determine what is considered right and wrong behaviour at work. Therefore, it is much clear that there is a strong link between ethical climates and the workplace safety.

Thus, this study discusses how the ethical climates affect the employees' work place safety behaviours and ultimately on the occupational health and safety. The literature review shows that among the nine types of ethical climates, principal-local climates and benevolent- local climates have the highest positive effect on workplace safety behaviours. Therefore, the organisations should encourage these types of ethical climates in their organisations and can enhance the safety performance by aligning their safety initiatives with ethical climates.

Keywords: Occupational Health and Safety; Ethical Climates; Employee Safety Behaviours.

1. INTRODUCTION

Healthy workers are productive workers with high morale and better productivity (Pasha and Liesivuori, 2003). Workers have a right to a safe workplace. In every country the law requires employers to provide their employees with safe and healthful workplaces. However, according to Rantanen *et al.* (2004 cited Trute and Hiebert-Murphy, 2013). 2.4 billion working people in the developing countries often have to endure employment conditions, which do not meet even basic Occupational Safety and Health (OSH) standards.

The 'root cause' of the accident is a human error on part of a person involved directly in the dynamic flow of events (Rasmussen, 1998). As it was recorded, 70-80% of the industrial accidents were due to 'human error'. As human errors can be eliminated through behaviours, behaviours have always had a role in safety. For instance, Guldenmund (2000) viewed that, when designing and evaluating safety processes, attention needs to be in three basic domains; namely, environment (such as equipment, tools, machines, housekeeping, engineering, management systems); person (employees' knowledge, skills, abilities, intelligence, motives, and personality); behaviour (employees complying, recognizing, communicating, and actively caring). Behaviours are regarded the primary, and sometimes only, tools for survival, remaining today as the last tool when all else fails (Galloway, 2012). Galloway (2012) further explains that, when proper tools or systems were lacking, workers should behave in a manner for self-preservation. Thus, improving the safety behaviours of workers can be a reassuring way to eliminate human error, and enhance safety in an organizational level.

*Corresponding Author: E-mail - uthpalarathnayake@ymail.com

As argued by many researchers, the organization and its subunit have the most important influences on the safety behaviour of the individual employee (e.g., Katz-Navon *et al.*, 2005; Neal *et al.*, 2000). Moreover, taking the right action in an organization when faced with a decision that influences other people is related to the work climate of the organization. This work climate determine what constitutes ethical behaviour at work (Victor and Cullen, 1988).

According to Parboteeah and Kapp (2008) there is an important but neglected link between workplace safety and ethics. However, only two studies have examined that link. Among that one study, McKendall *et al.* (2002) examined, how various aspects of an ethics program (ethical codes, communication about ethics, ethics training, and incorporation of ethics into human resources practices) were linked to Occupational Safety and Health Act (OSH Act) violations. And the finding was ethical compliance programs may actually be used to deflect attention from illegal activities rather than promote legitimate activities. In the second study by Parboteeah and Kapp (2008) which is the first one to demonstrate the utility of the ethical climate concept in explaining work place safety, confirmed that workplace safety can be enhanced through organisational ethical climate rather than solely on the typical contingent reward approach based on use of reward and punishment to encourage safety behaviours.

Accordingly, this paper aims at reviewing the strategies to improve workplace safety through ethical climates. This paper is based on the comprehensive literature review of an on-going MPhil research. Iqbal (2003) explains that literature review is required to identify any gap in the knowledge and a successful researcher claims a gap in the existing knowledge with evidence. Thus, findings of comprehensive literature review presented the overview of ethical climates, occupational health and safety issues, link between ethical climates and workplace safety and strategies to improve workplace safety through ethical climates. Finally, the paper elaborates future way of this research. Mainly, referring journal articles, books, published and unpublished bibliographies, conference proceedings, industry reports and documents took literature evidence. During the literature survey, key terms such as ethical climates, apparel industry, occupational health and safety, and ethical behaviour were used for the review.

2. LITERATURE REVIEW

2.1. OCCUPATIONAL HEALTH AND SAFETY

Occupational safety and health (OSH) is generally defined as the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment (Alli, 2008). Simply, the goals of occupational safety and health aims at fostering a safe and healthy working environment.

According to International Labour Organisation (ILO) and the World Health Organisation (WHO) Occupational health should aim at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention among workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarise, the adaptation of work to man and of each man to his job (Amarasinghe, 2013). Therefore, it is clear that work and health is always interrelated. Health of the worker affects the work performance. Healthy worker is an asset to the work place because his work is productive, and efficient and less errors. An unhealthy worker should be referred for treatment, rest or at least to relax for a short time. Time spent for other activities except for the production, such as seeking treatment or resting in the sick room, is a cost to the organisation. At the same time work affects the health of a person in two ways, mostly in a positive manner, because of the earnings the workers will have a better access to nutrition, education. Accordingly, researchers, have found that the workers life expectancy is significantly longer than a non-working population, which is called the "Healthy workers effect". However, if the work place is not a safe place to work, the workers might end up with occupational accidents or if the workplace is not healthy the worker might end up with occupational diseases.

Workplace accidents occur for many reasons including accidents result from the behaviours of people, the hazards in the work environment (Figure 1). It has been found that unsafe actions, more so than unsafe conditions are the root cause of the vast majority of occupational injuries and accidents (Mcquiston, 2012). Moreover Mcquiston (2012) further explained that approximately 80 out of every 100 accidents are directly attributable to the person involved in the incident. In fact, unsafe work behaviour causes four times as many accidents as unsafe work conditions.

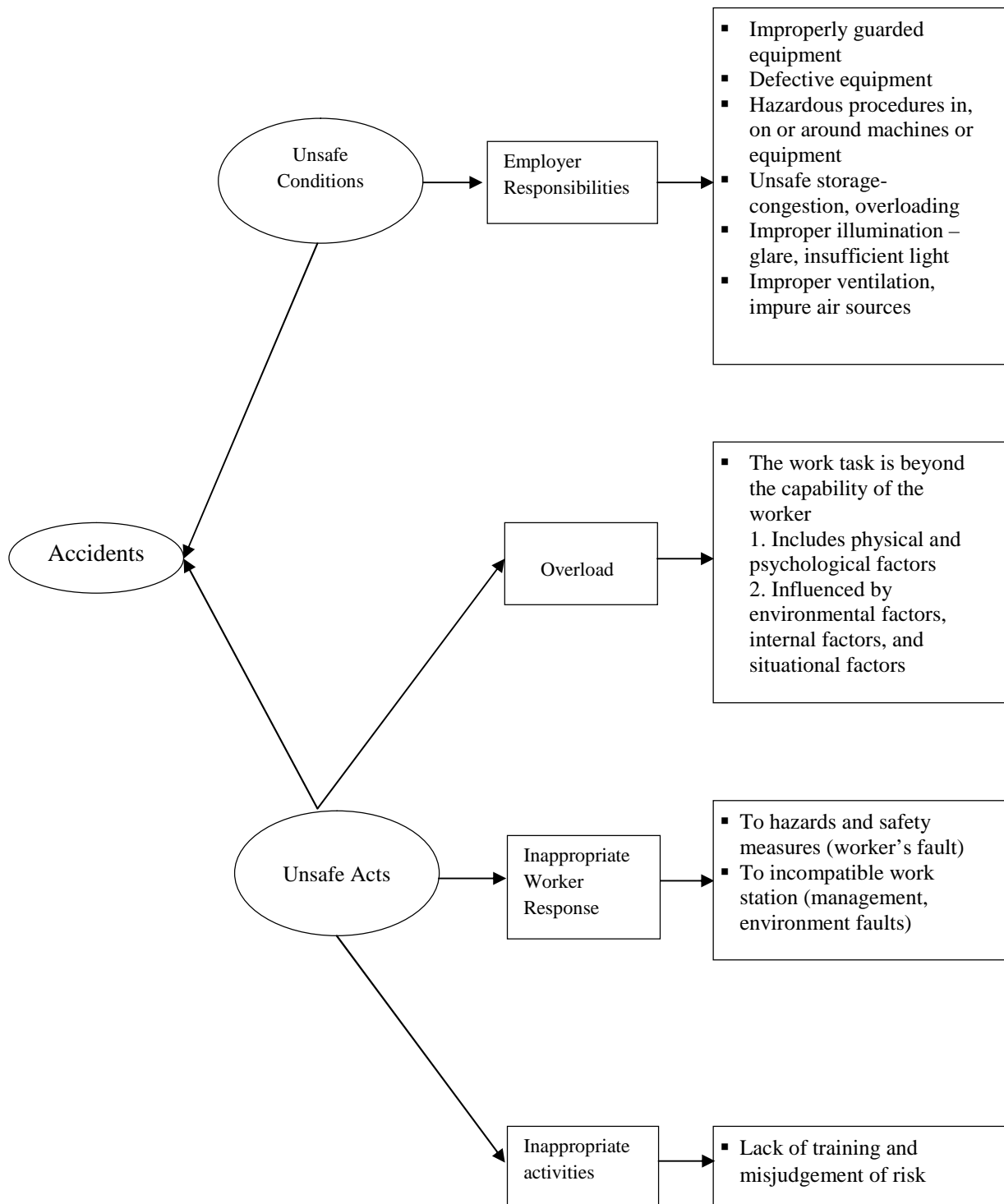


Figure 1: Causes for Occupational Accidents

Unsafe condition is a condition in the work place that is likely to cause property damage or injury. According to the World Health Organization (WHO), working conditions, for the majority of the three billion workers worldwide, do not meet the minimum standards and guidelines set by the WHO and the

International Labour Organization (ILO) for occupational health, safety and social protection. Throughout the world, poor occupational health and safety leads to two million work-related deaths, 271 million injuries and 160 million occupational diseases per year (Eijkemans, 2003). The majority of the world's workforce does not have access to occupational health services; only 10-15 % of the total global workforce has access to some kind of occupational health services. The main problem of the absence of occupational health services is the continuous presence of hazards in the workplace, such as noise, toxic chemicals, and dangerous machinery, leading to a huge burden of death, disability and disease.

On the other hand, unsafe act is a performance of a task or other activity that is conducted in a manner that may threaten the health and/or safety of workers (Hosseinian and Torghabeh, 2012). Behind every unsafe behaviour or unsafe act, there is a reason that those people engage in those acts. According to Henrich there are three major reasons behind the unsafe acts of the employees namely, overload, inappropriate response and inappropriate activities (Brauer, 2016).

However, all workplaces should be safe to work for all workers. Occupational safety and health should not be restricted to the industry as this is a cross cutting issue for all working sectors (Amarasinghe, 2013). It is the duty of the employer to provide all equipment which is intended to be worn or held by a person at work which him against one or more risks to his health and safety (Branson, 2015). Moreover, Amarasinghe (2013) explained that there is an equal responsibility lies with the employees as they are obligated to use the supplied personal protective equipment as per the Factories Ordinance and the Workmen's Ordinance of Sri Lanka.

However, it has been noted that many organisations have made substantial efforts to ensure that facilities and equipment are designed for safe operation, and that appropriate safety management systems are in place. However, all too often, employees are still having accidents. The reason behind these accident is the human errors (Sellers and Eyre, 2000). One of the important way of preventing the human errors is management of behaviours (Dekker, 2002). A lot of times, that has to do with the management system - the way people are measured and rewarded, the culture of the organization that leads unsafe behaviour to be exist (Cooper, 2001). Managers have to look at the causes of accidents as being a combination of a management system and a culture or environment that leads to human error (Ganguly, 2011). In this context ethical climate of the organisations can be used as an effective tool as to manage the behaviours hence improve the occupational safety and health practices.

2.2. ETHICAL CLIMATES

It is important to note that many types of climates exist within the organizational framework: climates for safety compliance, community service, and innovation are just a few that have been researched (Moore and Moore, 2014). Among those, the ethical climate concept has derived from the idea of organisational climate which refers to the way people perceive the environment of their workplace (Coetzer, 2015). According to Victor and Cullen (1988), organisational climate types can be categorized into two broad classifications. The first category relates to the aggregated perceptions towards structure and procedure forms for the use of rewards and control. The second concerns the aggregated perceptions of the existence of organisational norms supporting certain values.

According to Victor and Cullen (1988) climate types under the second classification have an ethical basis. Based on this premise combined with Schneider's (1975) conceptualisation of multiple climates in an organisation, Victor and Cullen (1988) hold that there should be a climate that guides organisational members to determine what is considered right and wrong behaviour at work, which they name ethical climate.

Therefore, according to (Cullen *et al.*, 2001) ethical climate refers to the shared perceptions of organisational members regarding what is considered correct behaviour in the organisation and how the organisation deals with ethical issues. Moreover, Lombardo (2013) defines organisational ethical climate as the moral atmosphere of the work environment and the level of ethics practiced within a company. To clearly define the ethical climate of an organisation, Victor and Cullen (1988) employed theories derived from philosophy, psychology, and sociology. A two-dimensional model is then devised to describe possible various ethical climate types in organisations.

The first dimension called ethical criterion. This dimension refers to the considerations that individuals take into account when making ethical decisions. The basis of this dimension is the three basic ethical theories, namely, (1) egoism, (2) benevolence or utilitarian, and (3) principled or deontology. That is, whether the decisions associated with their own self-interest (egoism), the interests of as many people as possible (utilitarian), or the adherence to certain principles of right or wrong (deontology) respectively.

The second dimension called locus of analysis. It concerns the referent from which individuals receive their cues regarding what is considered ethically appropriate in decision making (Peterson, 2002). This dimension is derived from sociological theories of roles and references group as proposed by Merton (1957). Merton suggests the distinction between a local and a cosmopolitan referent that might help shape the behaviours and attitudes of role incumbents in social system. The sources of role definitions for the local incumbents are contained within the social system. For the cosmopolitan role incumbents, the referents of role definition are in social system external to the system in which the actor is embedded.

Gouldner (1957) apply these conceptions in organisational contexts. The local referent refers to the organisation itself (e.g., the organisation’s standards and policies). The cosmopolitan referent is pertains to the organisation, such as the community or religious values (Martin and Cullen, 2006). Victor and Cullen (1988) extend the work of Gouldner (1957) to include another referent called individual. This referent is located within the individuals themselves (i.e. their own personal ethics). They develop a typology comprising nine theoretical ethical climate types as shown in Table 1.

Table 1: Theoretical Ethical Climates Types

Locus of Analysis	Individual	Local	Cosmopolitan
Egoism	Self interest	Company interest	Efficiency
Benevolence	Friendship	Team play	Social responsibility
Principle	Personal Morality	Rules and procedures	The law or professional codes

Source: Victor and Cullen (1987)

This typology clarifies the interaction of the two ethical climate dimensions in an organizational context. In the context of the egoism criterion, the loci of analysis identify the particular “self” in whose interests one is expected to act (Victor and Cullen, 1988) with no consideration of other constituents’ interests. Therefore, in the self-interest (egoism-individual) climate, the egoism criteria (the maximisation of self-interest) are used for the needs of one’s own self, such as personal gain. In the company interest climate (egoism-local), the considerations are for the organisation’s interest such as corporate profit. Finally, in the efficiency climate (egoism-cosmopolitan), considers society’s best interest, for example, the efficiency of the social system.

In the context of benevolence criteria, the loci of analysis both identify for organisational members “who we are” and set the boundaries for “our concerns” (Victor and Cullen, 1988). In the team play (benevolence-local), the criteria are applied for the organisational collective. In the social responsibility climate (benevolence-cosmopolitan) the criteria are considered for other constituents outside the organisation, for example, caring for the interests of society as a whole suggests a concern for social responsibility.

In the context of the principle criterion, the loci of analysis define sources of principles expected to be used in the organisation (Victor and Cullen, 1988). In the personal morality (principle-individual) climate, organisational members are expected to be guided by their own personal ethics. In the rules, standard operating procedures climate, the source of principles comes from the organisation itself, such as organisational policies and codes of conduct. In the laws or professional codes climate the source of principles is outside the organisations, for instance, legal system, professional codes and religious values.

2.3. OCCUPATIONAL HEALTH AND SAFETY AND ETHICAL CLIMATES

As discussed in the previous section ethical climates represent a subset of the array of work climates and refer to the institutionalized organizational practices and procedures that define what is considered right or wrong within the organization.

As argued by many researchers, the organisation and its sub unit have the most important influences on the safety behaviour of the individual employee (e.g., Katz-Navon *et al.*, 2005; Neal *et al.*, 2000). According to Parboteeah and Cullen (2012) by investigating the local level, one can more accurately tease out the effects of the plant level climate on occupational health and safety. Additionally, plant level climate reflects a condition that is within the organizations ability to change. In contrast, other loci of analysis such as the individual or the cosmopolitan are not considered, because they do not necessarily reflect the strongest influence of ethical climate on safety behaviours.

It is argued that there are compelling reasons to expect a strong link between local ethical climates and workplace safety. Schneider (1990) defines climates as “incumbents perceptions of the events, practices and procedures and the kinds of behaviours that get rewarded, supported and expected in a setting.” Since ethical climates are concerned with issues that relate to workers overall welfare and well-being, it can be believed that the ethical climate within any plant will provide guidance as to the appropriate safety enhancing behaviour. Climate perceptions provide guidance to employees with respect to the types of role behaviours that will be rewarded and supported in the organization (Zohar and Luria, 2004). Therefore, the following section discusses the links between occupational health and safety and three ethical climates namely, egoist-local climates, Benevolent-local climates and Principled-local climates.

Egoist-local Climates

As discussed earlier the egoist dimension is generally based upon the maximization of self-interest (Cullen *et al.*, 2003). Therefore, it is believed that in the egoist climate the decision-maker is likely to choose alternatives that benefit himself/herself the most while ignoring the needs of others (Martin and Cullen, 2006). Moreover, in the context of the local locus of analysis, decisions are made based on profitability or efficiency considerations at the expense of the individual well-being (Victor and Cullen, 1987; Victor and Cullen, 1988).

It is argued that an egoist-local climate will be associated with increased incidences of injuries in a plant. In an egoist-local climate, employees perceive “that self-interest guides behaviour, even to the possible detriment of others” (Martin and Cullen, 2006). If employees perceive that the organization is promoting the material well-being of the company at the expense of the well-being of the individual employees, they are less likely to be concerned about safety. In fact, they are more likely to be careless about the impact of their actions on others. Furthermore, safety programs are costly and can expect that the organization may not necessarily devote the resources to safety if they are focused on efficiency.

Consequently, it is likely that the egoist climates place pressures on employees for production and profitability. Therefore, can expect that in such egoist-local climates, there are higher incidences of injuries because of the exclusive emphasis on the productivity and profitability of the business.

In contrast, safety-compliance behaviours are seldom acknowledged in such climates. Safety-compliance behaviour seems inconsistent with an egoist-local climate, as it may not necessarily contribute to organizational efficiency and profitability. In fact, it more likely that employees will behave in self-interested manner and be less motivated to comply with safety standards and, more motivated to achieve production goals. Furthermore, it is also likely that as employees see others behave in self-interested fashion, they will be less likely to see the importance of safety and thus less motivated to comply (Zohar, 2002).

An egoist-local climate is also unlikely to promote the cohesiveness and active caring that has been shown to be so crucial to making employees feel more responsible for the safety of others (Simard and Marchand, 1997; Zacharatos *et al.*, 2005). Exclusive focus on profitability and efficiency is likely to discourage employees from voluntarily participating in activities that enhance the safety of their colleagues.

The expectation is that individuals are not concerned with the well-being of others (Victor and Cullen, 1988). Under such conditions, it seems unlikely that the workers would be motivated to voluntarily participate in safety programs. This lack of caring for the individual is likely to be manifested in lower motivation to participate in safety enhancing behaviours. Therefore, if egoist-local climate exists in an organisation, the organisation should identify and address the factors that influence the individual's determination of what is in their self-interest to include the personal benefits from maintaining a safe work environment.

Benevolent-local Climates

Benevolence is primarily based on concern for others (Victor and Cullen, 1987; Victor and Cullen, 1988). Within such a climate, the decision-maker is likely to make those decisions that result in maximum collective gains even at the expense of individual needs (Cullen *et al.*, 2003). In the benevolent-local climate, the focus is on the well-being of those in the organisation. Therefore, a person perceiving a benevolent climate is most likely to be concerned about others in the plant and will make those decisions that provide the greatest good for the greatest number of people (Martin and Cullen, 2006).

Given the above, a benevolent-local climate is inherently concerned with concern for the welfare and greatest good for the greatest number of people (Parboteeah *et al.*, 2005), of which safety is a likely an important component. It is therefore expected that workers respond to a benevolent climate by being more aware and concerned about safety issues. It is further argued that if workers perceive others to be showing concern for their own safety, they are also more likely to be aware of safety issues and to be motivated to enhance their own safety (Barling *et al.*, 2002).

According to social exchange theory (Blau, 2009) when employees perceive that their organization values and supports them, an implied obligation develops on their part for future mutuality that will benefit the organization. Due to the high level of concern for safety and the collective well-being fostered by a benevolent climate, and the sense of mutual obligation surrounding safety (Hofmann and Morgeson, 1999) workers are more likely to go beyond mere compliance and are more voluntarily motivated to participate in activities that promote safety within the organization. Thus, researches have suggested that organisations need to devise systems and structures to build an environment where employees genuinely care about each other's wellbeing.

Principled-local Climates

Victor and Cullen (1988) ethical criterion of principle embodies the application or interpretation of rules, laws, and standards in the normative expectations in a social unit. In general, when faced with an ethical dilemma, organizational or group norms suggest that the decision-maker resort to decisions that are based on adherence to rules and codes (Martin and Cullen, 2006). The expected sources of principles for such moral reasoning can be internal to an individual with a principled-individual climate, or external such as with a local ethical code (principled-local) or a broader code such as the Bible or state and federal laws (principled-cosmopolitan) (Victor and Cullen, 1988).

Principled climates are manifested through the application of organizational rules and codes of conduct (Martin and Cullen, 2006). As such, it is expected that in stronger principled climates, employees will be more motivated to comply with established safety requirements (Ismail, 2015). Therefore it can expect that principled climates to be positively related to safety behaviours as the inherent emphasis on security encourages employees to be more motivated to behave safely.

Additionally, it is expected that workers will be more motivated to participate voluntarily in safety programs in principled climates based on progressive personal and organizational policies and procedures that solicit employee participation in safety (Parker *et al.*, 2001). In contrast, weaker principled climates may not place as much emphasis on safety and may not motivate voluntary participation on the part of the employees. Hence, managers are encouraged to establish and maintain a principled-local climate and foster adherence to company rules and procedures while simultaneously maintaining safety policies and procedures.

3. SUMMARY

Work place safety or occupational health and safety is an important aspect in any type of organisation. Therefore, there should be strategies to enhance workplace safety in the organisations. Moreover, literature identified that employee behaviour is a crucial factor in maintaining a safety environment. Various researchers have identified various methods to enhance the safety behaviours in the organisations and ethical climates can affect in employee behaviours. Thus, this paper reveals the strategies to enhance workplace safety through aligning safety initiatives with ethical climates. Figure 2 summarises the literature review of this study.

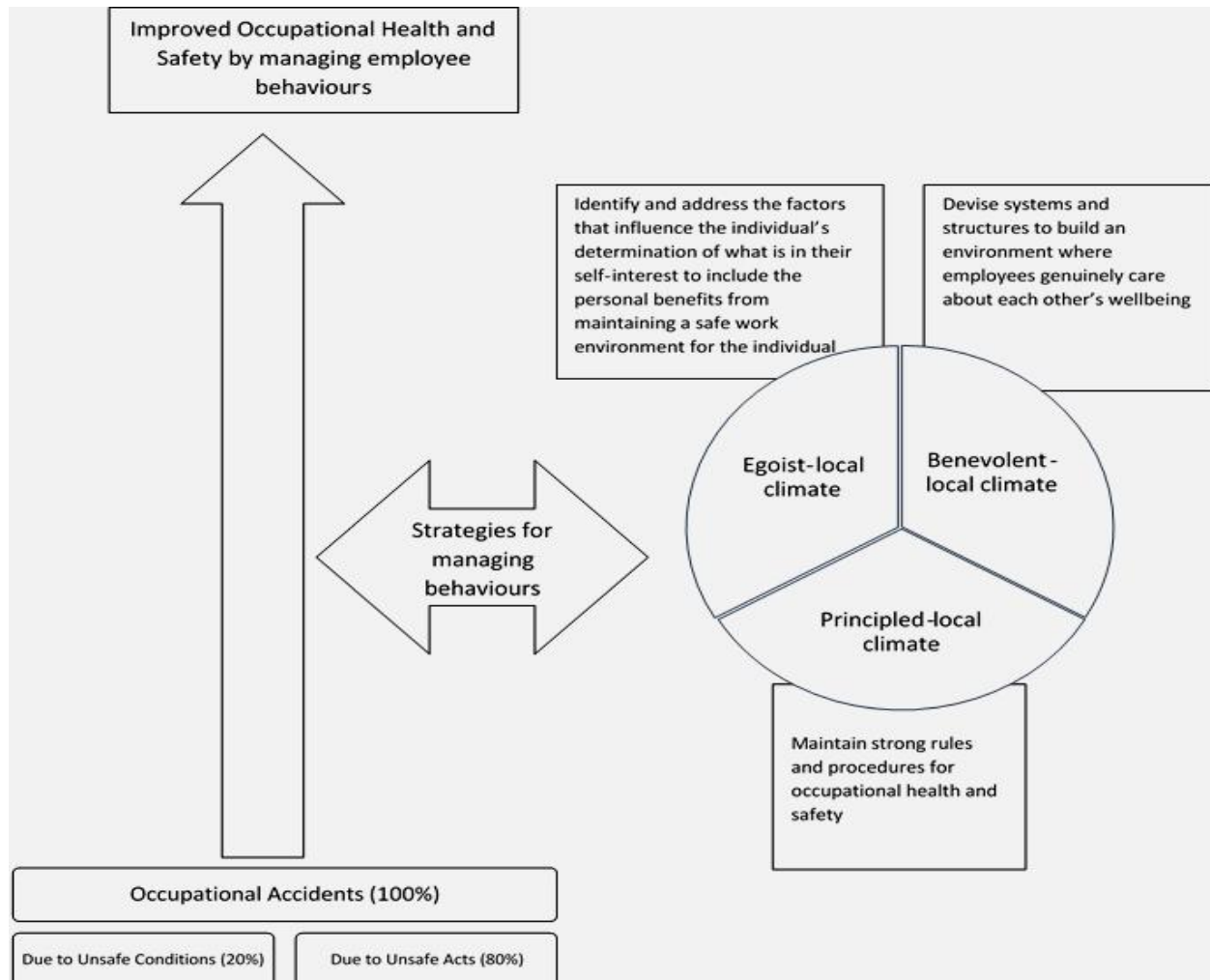


Figure 2: Summary of the Literature

It has been noted that the ethical climate exists within one organisation can defer from another organisation. The organisations with egoist-local climate can enhance the safety of the employees through identifying strategies to address personal benefits of the employees by maintaining a safety behaviours. The employees within the benevolent-local climates are inherently associated with the safety behaviours. Therefore the organisations with benevolent-local climate should devise the systems and structures to enhance caring of each other in the organisation. Moreover, it was revealed that as principled-local climates are positively affect on the employee safety behaviours, it is beneficial if organisations can transfer their organisational ethical climate into principled-local climate. Moreover, organisations with principled-local climate should maintain strong rules and procedures for occupational health and safety.

4. REFERENCES

- Alli, B.O., 2008. *Fundamental Principles of Occupational Health and Safety*. 2nd ed. Geneva: International Labour Organization.
- Amarasinghe, C., (2013). Long term benefits of occupational safety. *Sunday Observer*, 13 October, Available from: <http://www.sundayobserver.lk/2013/10/13/spe02.asp>.
- Barling, J., Loughlin, C. and Kelloway, E.K., 2002. Development and Test of a Model Linking Safety Specific Transformational Leadership and Occupational Safety. *Journal of Applied Psychology*, 87(3), 488-496.
- Blau, P.M., 2009. *Social exchange and power in social life*. 13th ed. London: Transaction publishers.
- Branson, D., 2015. *An Introduction to Health and Safety Law: A Student Reference*. New York: Routledge.
- Brauer, R.L., 2016. *Safety and Health for Engineers*. 3rd ed. USA: John Wiley & Sons.
- Cooper, D., 2001. *Improving Safety Culture- A Practical Guide*. Hull: John Willey & Sons Ltd.
- Cullen, J.B., Parboteeah, K.P. and Victor, B., 2003. The Effects of Ethical Climates on Organizational Commitment: A Two-Study Analysis. *Journal of Business Ethics*, 46(2), 121-141.
- Dekker, S.W., 2002. Reconstructing human contributions to accidents: the new view on error and performance. *Journal of Safety Research*, 33(3), 371-385.
- Eijkemans, G., 2003. *The Global Occupational Health Network*. Geneva: World Health Organisation.
- Galloway, S.M., 2012. *Understanding the Roles of Behavior in Safety* [online]. Dallas, Occupational Health & Safety. Available from: <https://ohsonline.com/Articles/2012/12/01/Understanding-the-Roles-of-Behavior-in-Safety.aspx>.
- Ganguly, S., 2011. Human Error Vs. Work place Management in Modern Organisations. *International Journal of Research in Management and Technology*, 1(1), 13-17.
- Gouldner, A.W., 1957. Cosmopolitans and locals: Toward an analysis of latent social roles. *Administrative Science Quarterly*, 2(3), 281-306.
- Guldenmund, F.W., 2000. The Nature Of Safety Culture: A Review of Theory and Research. *Safety Science*, 34(1), 215-257.
- Hofmann, D.A. and Morgeson, F.P., 1999. Safety-related behavior as a social exchange: The role of perceived organizational support and leader-member exchange. *Journal of Applied Psychology*, 84(2), 286-296.
- Hosseini, S.S. and Torghabeh, Z.J., 2012. Major theories of construction accident causation models: a literature review. *International Journal of Advances in Engineering & Technology*, 4(2), 53-66.
- Iqbal, J. 2003. *Learning From the Radical Change Initiative in British Aerospace Military Aircraft*. Thesis (PhD). Salford University.
- Ismail, U.F.F., 2015. The Impact of Safety Climate on Safety Performance in a Gold Mining Company in Ghana. *International Journal of Management Excellence*, 5(1), 556-566.
- Katz-Navon, T.A.L., Naveh, E. and Stern, Z., 2005. Safety climate in health care organizations: A multidimensional approach. *Academy of Management Journal*, 48(6), 1075-1089.
- Lombardo, J., (2013). *Organizational Ethical Climate: Definition, Issues & Improvement* [Online]. California, Study.com. Available from: <http://study.com/academy/lesson/organizational-ethical-climate-definition-issues-improvement.html>
- Martin, K.D. and Cullen, J.B., 2006. Continuities and extensions of ethical climate theory: A meta-analytic review. *Journal of Business Ethics*, 69(2), 175-194.
- McKendall, M., De Marr, V. and Jones-Ridders, C., 2002, Ethical Compliance Programs and Corporate Illegality: Testing the Assumptions of the Corporate Sentencing Guidelines. *Journal of Business Ethics*, 37(4), 367-383.
- Mcquiston, T.H., 2012. Triangle of prevention: a union's experience promoting a systems-of-safety health and safety program. *New Solutions*, 22(3), 343-363.
- Merton, R.K., 1957. *Social Theory and Social Structure*. New York: Free Press.

- Moore, H.L. and Moore, T.W., 2014. The Effect of Ethical Climate on the Organizational Commitment of Faculty Menebers. *Journal of Academic and Business Ethics*, 9(1), 121-134.
- Neal, A., Griffin, M.A. and Hart, P.M., 2000. The impact of organisational climate and individual behaviour. *Safety Science*, 34(1), 99-109.
- Parboteeah, K.P., Cullen, J.B., Victor, B. and Sakano, T., 2005. National Culture and Ethical Climates: A Comparison of U.S. and Japanese Accounting Firms. *Management International Review*, 45(4), 459-481.
- Parboteeah, K.P. and Cullen, J.B., 2012. *Business Ethics*. New York: Routledge.
- Parboteeah, K.P. and Kapp, E.A., 2008. Ethical Climates and Workplace Safety Behaviours. *Journal of Business Ethics*, 80(1), 515-529.
- Parker, N., Axtell, C. and Turner, N., 2001. Designing a Safer Workplace: Importance of Job Autonomy, Communication Quality, and Supportive Supervisors. *Journal of Occupational Health Psychology*, 6(3), 211-228.
- Pasha, T.S. and Liesivuori, J., 2003. *Country Profile on Occupational Safety and Health in Pakistan*. Kuapio: Finnish Institute of Occupational Health.
- Peterson, D., 2002. Deviant workplace behavior and the organization's ethical climate. *Journal of Business and Psychology*, 17(1), 47-61.
- Rasmussen, J., 1998. The concept of human error: is it useful for the design of safe systems?. *Safety Science Montor-Special Edition*, 3(1).
- Schneider, B., 1975. Organizational Climates: An Essay. *Personnel Psychology*, 28(4), 447-479.
- Schneider, B., 1990. *Organizational Climate and Culture*. San Francisco: Jossey-Bass.
- Sellers, G. and Eyre, P., (2000). *The behaviour-based approach to safety* [Online]. UK: Behavioural Science Technology International. Available from: https://www.icheme.org/communities/subject_groups/safety%20and%20loss%20prevention/resources/hazards%20archive/~media/Documents/Subject%20Groups/Safety_Loss_Prevention/Hazards%20Archive/XV/XV-Paper-30.pdf
- Simard, M. and Marchand, A., 1997. Workgroups Propensity to Comply with Safety Rules: The Influence of Micro-Macro Organizational Factors. *Ergonomics*, 40(2), 172-188.
- Trute, B. and Hiebert-Murphy, D., 2013. *Partnering with Parents: Family-centred Practice in Children's Services*. Toronto: University of Toronto Press.
- Victor, B. and Cullen, J.B., 1987. A theory and measure of ethical climate in organizations. *Research in Corporate Social Performance and Policy*, 9(1), 51-71.
- Victor, B. and Cullen, J.B., 1988. The Organizational bases of Ethical Work Climates. *Administrative Science Quarterly*, 33(1), 101-125.
- Zacharatos, A., Barling, J. and Iverson, R.D., 2005. High-Performance Work Systems and Occupational Safety. *Journal of Applied Psychology*, 90(1), 77-93.
- Zohar, D., 2002. Modifying Supervisory Practices to Improve Subunit Safety: A Leadership-Based Intervention Model. *Journal of Applied Psychology*, 87(1), 156-163.
- Zohar, D. and Luria, G., 2004. Climate as a Social Cognitive Construction of Supervisory Safety Practices: Scripts as Proxy of Behavior Patterns. *Journal of Applied Psychology*, 89(2), 322-333.