The impact of hazards control practices on injuries and accidents in textile industry

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ABSTRACT – REZUMAT

The impact of hazards control practices on injuries and accidents in textile industry

Workplace injuries and accidents have an adverse effect on the lives of textile workers. The research study investigates the moderating effect of ethical climate on the relationship between safety management practices and safety behaviour. A simple random sampling technique was employed to collect data from 12 textile companies. A total of 384 textile workers participated in this study. Results revealed that management commitment, safety training, workers involvement, safety communication & feedback and safety promotion policies have a significant and positive influence on safety behaviour. While safety rules and procedure are failed to predict safety behaviour. Moreover, ethical climate positively moderate the relationship among management commitment, safety training, workers' involvement, safety communication & feedback and safety behaviour. Whereas, the ethical climate failed to moderate safety rules and procedure, safety promotion policies and safety behaviour. It is recommended that Textile companies must provide an ethical work climate in which the best SMP may help to reduce workplace injuries and accidents.

Keywords: safety behaviour, ethical climate, Safety Management Practices (SMP), textile companies

Impactul practicilor de control al pericolelor asupra cazurilor de vătămări corporale și accidente din industria textilă

Vătămările corporale și accidentele la locul de muncă au un efect negativ asupra vieții lucrătorilor din domeniul textil. Studiul de cercetare investighează efectul moderator al climatului etic asupra relației dintre practicile de management al siguranței și comportamentul de siguranță. Tehnica de eșantionare aleatorie simplă a fost folosită pentru a colecta date de la 12 companii din sectorul textil. La acest studio de cercetare au participat 384 de lucrători din domeniul textil. Rezultatele empirice au demonstrat că angajamentul managementului, instruirea în materie de siguranță, implicarea lucrătorilor, comunicarea și feedback-ul privind siguranța și politicile de promovare a siguranței au o influență semnificativă și pozitivă asupra comportamentului de siguranță, în timp ce regulile și procedura de siguranță nu au reușit să prezică comportamentul de siguranță. În plus, climatul etic influențează pozitiv relația dintre angajamentul managementului, instruirea în materie de siguranță, implicarea lucrătorilor, comunicarea și feedback-ul privind siguranța și comportamentul de siguranță. Totuși, climatul etic nu a reușit să influențeze regulile și procedurile de siguranță, politicile de promovare a siguranței și comportamentul de siguranță. Se recomandă ca companiile din industria textilă să ofere un climat de lucru etic în care cele mai bune pratici de management al siguranței să poată contribui la reducerea cazurilor privind vătămările corporale și accidentele la locul de muncă.

Cuvinte-cheie: comportament de siguranță, climat etic, Practici de management al siguranței (SMP), companii din sectorul textil

INTRODUCTION

There are the latest technologies and legislations to control occupational injuries and accidents. Besides this, there are still huge numbers of workplace accidents. It is the responsibility of the organizations to provide a risk and accidents free environment to their workers [1]. Every year millions of workers were injured and died due to work-related injuries and accidents. Similarly, millions of working hours were also wasted due to absenteeism from work. An occupational accident is defined as "an unexpected condition arising during the course of work which can cause injury or disease which sometimes leads to death".

Narrowing to the textile industry is one of the oldest industries of mankind. The textile industry is old as human civilization and it produces fundamental human needs such as food. It is the largest manufacturing industry in Pakistan. In Asia, Pakistan is number eight to export textile products. The textile industry has great significance as it contributes 8.5% of the total GDP of Pakistan and it gives employment to 45% of the country's labour force. Moreover, the textile industry should focus on workplace safety and health but unfortunately, the condition of Pakistani textiles relating to health and safety is worst. By comparing occupational injuries and accidents of years 2017/2018 to 2020/2021 it is clear that in these years

the textile industry has increased occupational injuries and accidents [2].

COMPARISON OF OCCUPATIONAL INJURIES PERCENTAGE IN TEXTILE INDUSTRY OF PAKISTAN AND OTHER INDUSTRIES [3]		
Items	**2017–2018**	**2020–2021**
Textile (Manufacturing)	16.91%	19.11%
Transport, storage & communication	7.71%	9.96%
Electricity Gas & water	0.44%	0.36%
Mining & Quarrying	0.27%	0.48%

Table 1 shows the statistics of different types of occupational injuries in the Pakistani textile industry and other industries from 2017–2018 to 2020–2021. The table reveals that the textile industry has a high percentage of occupational injuries as compared to other industries.

The introduction of the latest machinery in the textile industry produces hazardous incidents and an unhealthy environment. The officials failed to establish the rules relating to occupational safety and health in textiles, and the promotion of occupation hazards is inadequate. The workers in the textile industry are unaware of how to work safely, as there are inappropriate safety management practices (SMP) in the textile industry. The workers did not know how to behave safely and lack of safety behaviour is the cause of workplace injuries and accidents. The present study measured the safety behaviour of textile workers by safety compliance and safety participation based on task and contextual performance [4]. Safety compliance is related to the set rules by an organization whereas, safety participation is a voluntary action performed by the workers [4]. The authors choose these dimensions of safety behaviour as these are widely used and accepted by past researchers [5, 6]. The major reasons for injuries and accidents in textile industries are the lack of safety training, poor management, inappropriate rules, and inadequate safety promotion policies. Therefore, this research is conducted to understand safety behaviour according to human error. The workers' safety behaviour can be influenced by SMP [6, 7]. SMP are the policies and procedures which are implemented by the organization to improve the safety behaviour of the workers [5, 8]. Similarly, it is argued that SMP helps to understand and reduce human errors in the workplace. The six SMP (management commitment; safety training, workers involvement; safety rules & procedure and safety promotion policies), when applied completely, can influence safety behaviour in the workplace [9]. We incorporate workers' ethical climate as a moderating variable on the relationship between SMP and safety behaviour to obtain better results. The ethical climate is the viewpoint of the workers relating to the work environment and organizational procedures

[10]. According to the limited knowledge of researchers, this is the first study to incorporate ethical climate as moderating variable in the relationship between SMP and safety behaviour. The theoretical framework of the present study is shown in figure 1. The framework describes how SMP can influence safety behaviour by moderating the role of ethical climate concerning lower injuries and accidents in textile industries. Similarly, an ethical climate portrays the rules and procedures already maintained by the organization [11], which could positively influence the workplace safety environment. Pakistan is a developing country and the condition of the Textile industry relating to hazards is worst. There is a dearth of SMP in the textile industry and if the situation remains the same the industry will face very bad consequences. The workers working in Pakistani textile are uncertain and their situation at work is worst. The statistics have shown the highest number of occupational injuries and accidents among them. Therefore, the present study is an addition to very few studies in the Pakistan textile industry to incorporate SMP and safety behaviour with the moderating role of ethical climate.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Safety behaviour

Miscellaneous studies debate safety behaviour and measured it as the dependent variable with a variety of safety-related outcomes, along with accidents rates [12, 13], injuries [14, 15–17], safety involvement or commitment [18, 19] and safety compliance and safety participation [20–23]. Compliance is an important component to define safety behaviour. Safety compliance is a "core behaviour that workers need to perform to retain workplace safety. Such behaviour contains maintaining the standards of work procedures and wearing personal protective equipment" [24]. Furthermore, safety compliance is defined as the efforts taken by employees to maintain workplace safety by following the organization's rules and procedures [21]. This kind of behaviour encompasses adherence to safety standards which would be beneficial in the Textile industry to avoid accidents.

At present the textile industry of Pakistan has no specific rules and standards so, there must be some basic safety rules and procedures for this industry, the workers should know about the manners of the workplace. Companies must follow basic safety precautions to avoid any incident. Therefore, safety compliance taken as a dimension of safety behaviour is beneficial. The next concept is safety participation which refers to a behaviour that secondarily takes part in employee personal safety and stimulates the growth of the workplace that reinforces safety.

Safety participation explains as a behaviour that does not affect the personal safety of employees directly but can help educate the people on an environment that supports safety [22, 24]. This type of behaviour comprises helping colleagues regarding safety

issues, organizing safety meetings and taking part in voluntary safety activities. Safety participation includes voluntary safety actions like attending safety meetings and assisting fellow workers in safety-related issues. This kind of behaviour is essential where there is a risk of an accident. Voluntary participation is essential from workers when there is a unique nature (textile) of industry, where the rate of accidents is high as compared to other industries. Hence, safety participation is beneficial for measuring safety behaviour.

A study by Pedersen and Kines [23] on safety motivation and safety performance (safety compliance and safety participation). Based on a theoretical model seven occupational safety motivation questionnaire items were developed with three forms of motivation for safety compliance/participation as follows: normative, social, and calculated motivations. The study revealed that there is a significant positive relationship between safety motivation and safety performance. In a similar study, Lu and Yang [20] investigated the relationship between safety leadership (safety motivation, safety policy, and safety concern) and safety performance (safety compliance and safety participation).

The study revealed that safety motivation and safety concerns positively affected safety compliance and safety participation. Singer et al. [25] examined the relationship between safety climate and safety performance. The study showed a significant link between organization safety climate and safety performance in hospitals. In a similar related study Siu et al. [26] examine the relationship between safety climate, psychological strains and safety performance. The results revealed that psychological strains partially mediated the relationship between safety climate and safety performance and there is a direct significant association between safety climate and safety performance. The two dimensions of safety behaviour (safety compliance & safety participation) have received a lot of recognition and empirically tested in safety management research that they can reduce the number of accidents in the workplace.

Management commitment

Management commitment plays a vital role in the organization to improve workplace attitudes and behaviour [27, 28]. Management commitment to safety is a degree to which upper-level management recognizes safety as a fundamental principle of an organization [29]. In addition, management commitment refers to the efforts by the upper level of management to assure that every feature of operations including, selection, procedure, equipment, training and work scheme are properly analysed and re-organize if needed [30]. Similarly, the commitment of an organization's top-level management plays a vital role in provoking organizational safe culture [29, 31, 32]. Yule et al. [33] examined the role of management and safety climate in stopping risk-taking at the workplace. The result revealed a positive relationship

between management commitment and worker risk-taking. In another study, conducted by Cox et al. [34] in UK plant reactors, the behavioural approaches to safety management were examined. The study revealed a positive relationship between management commitment and behavioural safety at all levels of the organization. Donald and Canter [35] conducted a study, they believe that number of safety climate scales including management commitment were correlated among employees of UK power plants. Similarly, Diaz and Cabrera [36] carried out a study on safety climate and attitude as evaluation measures of organizational safety. The findings concluded that company safety policies (including management commitment) were significant factors that influence organizational safety. Committed management indulges in safety-related outcomes and it can improve the safety behaviour of the Textile workers thus the following hypothesis is formulated:

H1: Management commitment is significantly and positively related to safety behaviour.

Safety training

Training prepares workers with the help of essential knowledge and skills and it also creates a positive attitude and behaviour of workers to work safely [37]. Similarly, training helps reduce hazards in the workplace and it enhances the abilities of employees to mark uncertainties [38]. Safety training is explained as it is knowledge, and understanding of safety given to the workers to work safely at the workplace without any danger to their welfare [39]. Thus, everyone at the workplace should be trained and able to control any hazard at the workplace. Wadsworth and Smith [40] organized research to determine the relationship between safety cultures, safety behaviour and occupational safety and health. The study resulted that training related to safety is the fundamental factor to enhance safety behaviour in the workplace. In another study, Zacharatos et al. [41] examined the association between high-performance work systems and occupational safety. The study revealed that appropriate training can upgrade the level of safety in the workplace. The results also indicated a significant association between high performance and safety training. Mohammad et al. [42] conducted a study on safety management in the construction sector of Jordon. The study revealed that training for workers is paramount to enhancing safety performance. Furthermore, the study indicated the component which leads to zero accident rates is safety training. In a similar vein, another study was conducted on safety performance in the construction sector of Palestine. The study followed qualitative and quantitative methods to identify safety performance among subcontractors. The resulting exhibit is that safety training is significantly related to the rate of injuries. Hayes et al. [43] assessed the concept of safety in the work environment. In addition, the study showed that the employees who are well trained had an effective perception regarding the workplace safety environment than those who are not. Similar results have

been attained by O'Dea and Flin [44], who conducted a study in the offshore oil and gas sector. They found that workers who are trained had an excessive perception regarding safety climate than those workers who are not properly trained. It is believed that safety performance can lower the injury rate and can positively influence workplace safety. Therefore, we proposed the following hypothesis.

H2: Safety training is significantly and positively related to safety behaviour.

Workers involvement

Workers' involvement is described as the willingness of workers to acquire responsibility to create a work environment free from accidents [45]. Workers' involvement is a technique that demands energetic and action-oriented behaviour and continuous progress towards safety responsive environment. Similarly, the ability to which workers are indulging in the decision-making process, be responsible for their acts and empower to take safety improvement initiatives at the workplace. Vredenburgh [46] stated that employees who are very close to work are the workers who are well-experienced and can make suggestions for the improvement of safety. Organizations that make specific teams to attain safety revealed the best result as compared to those that did not [47]. Similarly, the degree to which management motivate workers' involvement to assign them daily routine work, influence safety at the workplace [48]. Cheyne et al. [49] examined workers' attitudes in manufacturing companies. The result showed that workers' involvement was a significant predictor of safety-related activities. In addition, Vredenburgh [45] stated that workers' participation is a key element in the prohibition of injuries. On a similar note, Costella et al. [50] indicated that workers' participation is important in achieving a safer workplace without occupational accidents. Moreover, Rooney [51] conducted a study to check the influence of workers' involvement and employee ownership on safety and health in the workplace. The study revealed that worker involvement is significantly related to a lower injury rate. Lee [52] assessed the safety culture in UK nuclear fuels. The study covered numerous other aspects like training, job satisfaction, safety rules and procedures and workers' involvement. The result showed that workers' involvement is a conclusive element in safety management. Workers' involvement can improve and upgrade the safety behaviour of the workers thus the following hypothesis are designed.

H3: Workers' involvement is significantly and positively related to safety behaviour.

Safety communication and feedback

Communication plays a main role in the success of any individual or organization to complete their work and achieve their goals. The role of feedback is critical in defining employee performance because the behaviour of workers depends on new appearances, such as updated information on hazards and threats.

Vinodkumar and Bhasi [5] revealed that regular communication related to safety among supervisors, management and employees is an efficient management practice for the advancement of safety in the workplace. Similarly, Lee [52] listed communication attributes of low-accident units, and the study disclosed communication as a major contributor to the success of safety outcomes. Meanwhile, Havold and Nesset [53] defined communication as the degree to which workers realize that organization deliver an effective information exchange concerning internal safety business. Bentley and Haslam [54] examined safety practices used by managers of high and low accident rates in postal delivery offices. The study stated that there is a positive association between safety communication and lower accident rates. In addition, Mohamed [55] analysed the safety climate in construction. The results indicated the importance of communication in attaining a positive safety climate and safer work behaviour in construction. Similarly, DeJoy, Schaffer, and Wilson [56] evaluated the determinants and the role of safety climate. The study revealed a significant relationship between safety policies and communication as a feature of safety climate. Safety communication & feedback could understand and influence the concept of safety behaviour therefore the following hypothesis is formulated.

H4: Safety communication & feedback is significantly and positively related to safety behaviour

Safety rules and procedures

According to Vinodkumar and Bhasi [5], rules and procedures are maintained by the organizations towards its implementation to enhance the safety behaviour of the workers at the workplace. In the existing literature, safety rules and procedures play a significant role in safety-related outcomes. For example, a study conducted by Mearns, Whitaker and Flin [7] investigated the relationship between safety climate, SMP and safety performance in an offshore environment. The findings revealed that safety rules and procedures significantly relate to safety performance. Another study by Vinodkumar and Bhasi [5] examined the mediating role of safety knowledge and motivation on the relationship between SMPs and safety behaviour. The result showed that safety rules and procedures are the factors that have a significant correlation with injuries and accident rates. Leggat, Bartram & Stanton [57] aimed to discover the gap between practices and policy in healthcare reforms. The study showed that high-performance work systems characterized by procedures and policies contributed to safety performance. Dejoy et al. [56] revealed that safety policies and procedures were significantly related to safety at the workplace. Similarly, Diaz and Caberra [36] reported that safety policies and procedures are the contributors to the safety climate.

Concluding, well-maintained rules and procedures guarantee of safer work environment for the workers. Therefore, we proposed the following hypothesis

H5: Safety rules & procedures are significantly and positively related to safety behaviour.

Safety promotion policies

Safety promotion policies such as rewards, incentives and recreational activities motivate employees to complete their tasks safely at the workplace. Similarly, safety promotion policies can stimulate employees to contribute to the hazard control program and motivate employees to take self-protection action towards safety. Previous researchers have found that incentive programs effectively reduce accidents more than traditional measures, for instance, personnel selection, training, disciplinary actions and engineering improvements [58].

According to Ostrom, Wilhelmsen and Kaplan [59] organizations with good safety culture reward workers who are aware of safety problems and those who have awareness of finding ways to assess and remove workplace hazards. McAfee and Winn [60] review 24 studies and revealed that giving feedback and providing incentives promote employees' welfare and reduce workplace injuries and accidents further explain that all 24 studies found that giving feedback and providing incentives helped improve the safe environment. Likewise, Haynes, Pine and Fitch [61] also assessed that feedback and incentives reduce workplace accident rates. Vinodkumar and Bhasi [5] admitted safety promotion policies as one of the safety management practices and revealed them as a positive factor for incentives, rewards, promotion and creating awareness among workers for arranging safety programs. Similarly, safety promotion policies have a significant impact on the safety behaviour of the workers thus we come up with the following hypothesis.

H6: Safety promotion policies are significantly and positively related to safety behaviour.

Ethical Climate: Moderator

Ethical climate refers to the perception of the workers regarding organization standards and ethical behaviour [10]. Incorporating an ethical climate as a moderator is significant. Numerous moderating effects have been investigated in the relationship between SMP and safety behaviour but we introduced ethical climate as a moderator. We believe that an ethical climate can positively affect these relationships in Textile settings, as the ethical workplace motivates the workers to work safely and protect themselves and the organization from deadly hazards. Luria and Yagil [62] stated that a productive ethical climate has a positive relationship with a firm's performance. Ethical climate can be described as a significant component of a safe workplace where individuals can work safely. It also allows individuals to control and solve ethical issues within organizations [63]. In addition, an ethical climate helps in the decision-making process of the employees to make the work environment safe and secure [64]. There is a clear link between the role of interacting supportive ethical environment and the safe behaviour of the workers. Likewise, it is argued that organizations which portray weak ethical and professional standards found a higher ratio of unethical behaviour in the workplace. Whereas, organizations which practice strong laws and ethical procedures observed a rare ratio of unethical behaviour in the workplace. Therefore, Leaders, supervisors and managers are responsible for making an ethical atmosphere to make the work environment safe. Committed management, trained and involved workers which communicate and follow workplace rules with an ethical atmosphere can reduce workplace injuries and accidents. With this argument, we come up with the following hypothesis.

H7: Ethical climate moderates the relationship between management commitment and safety behaviour.

H8: Ethical climate moderates the relationship between safety training and safety behaviour.

H9: Ethical climate moderates the relationship between workers' involvement and safety behaviour.

H10: Ethical climate moderates the relationship between safety communication & feedback and safety behaviour.

H11: Ethical climate moderates the relationship between safety rules & procedures and safety behaviour.

H12: Ethical climate moderates the relationship between safety promotion policies and safety behaviour.
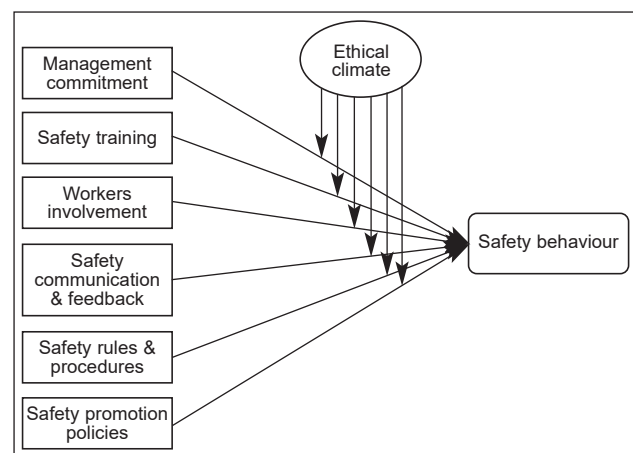

Fig. 1. Research framework

MATERIAL & METHODS

Data collection

Data was collected with the help of a simple random sampling technique from 12 Textile companies. Data was collected from Faisalabad city, as most of the textile industries are in Faisalabad. Faisalabad is also called Manchester of Pakistan because both cities are famous for the textile industry. A total of 536 questionnaires were distributed among respondents. Out of 536 questionnaires, 384 were used for data collection. The remaining questionnaires were discarded because some of them were incomplete and torn. The response rate was 72%. The questionnaire

Table 2

STUDY'S ITEMS & ITS SOURCES			
Constructs	**Items**	**A**	**Source**
Management commitment	9 items	0.876	Vinodkumar & Bhasi [5]
Safety training	6 items	0.812	Vinodkumar & Bhasi [5]
Workers involvement	5 items	0.819	Vinodkumar & Bhasi [5]
Safety communication & feedback	5 items	0.814	Vinodkumar & Bhasi [5]
Safety rules & procedures	5 items	0.866	Vinodkumar & Bhasi [5]
Safety promotion policies	5 items	0.891	Vinodkumar & Bhasi [5]
Safety compliance	7 items	0.854	Vinodkumar & Bhasi [5]
Safety participation	5 items	0.863	Vinodkumar & Bhasi [5]
Ethical climate	10 items	0.841	Victor & Cullen [10]

for SMP and safety behaviour (safety compliance & safety participation) ranging from (1) strongly disagree to (5) strongly agree was adapted from the study of Vinodkumar and Bhasi [5]. Similarly, the measurement for ethical climate ranging from (1) strongly disagree to (5) strongly agree was adapted from the study of Victor and Cullen [10]. All items were measured using 5 point Likert scale.

Table 2 shows the main sources of the constructs and the items which were adapted in this study. It also shows the recommended Cronbach's alpha of the constructs.

Table 3 depicts that 56.25% of the participants were male and 43.75% were female. Most of the respondents, 37.5% belong to the 31 to 40 years of group. In addition, 26.04% belong to the 41 to 50 years of group and 22.13% were related to 20 to 30 years of age. Similarly, 7.18% were associated with 51 to 60 years of groups. Lastly, 4.42% were under 20 years and only 2.08% were above 60 years. Regarding marital status, 77.86% were married while 22.13% were unmarried. As far as education is concerned majority, 39.06% of the respondents have a matriculation education. Following, 24.47% have intermediate qualification and 14.58% have bachelors. Likewise, 9.11% and 7.29% have Secondary and primary education respectively. Whereas, only 5.46% have a master's degree. Concerning working departments, the majority 28.38% of the respondents were working in the processing unit. Whereas, 26.04% were working in the weaving unit. Moreover, 24.47% of the participants were working in stitching and 21.09% belonged to the spinning unit. Concerning working experience, the majority 45.83% of the respondents belong to the 1 to 5 years of age group. In addition, 31.25% have 6 to 10 years of experience. Similarly, 15.62% have above 10 years of experience and only 7.29% have less than a year of experience. Concerning living areas, the majority 62.5% belong to the rural area while 37.5% were related to urban areas.

Validity and correlation analysis

Table 4 presented the mean and standard deviation of the constructs. A textile worker shows their agreement

Table 3

DEMOGRAPHIC PROFILE OF THE RESPONDENTS		
Elements	**Frequency**	**Percentage (%)**
Gender		
Male	216	56.25
Female	168	43.75
Age		
Under 20 years	17	4.42
20 to 30 years	85	22.13
31 to 40 years	144	37.5
41 to 50 years	100	26.04
51 to 60 years	30	7.18
Above 60 years	8	2.08
Marital Status		
Married	299	77.86
Un-Married	85	22.13
Education Level		
Primary School Certificate	28	7.29
Secondary School Certificate	35	9.11
Matriculation	150	39.06
Intermediate	94	24.47
Bachelors	56	14.58
Masters	21	5.46
Working Units		
Stitching	94	24.47
Processing	109	28.38
Weaving	100	26.04
Spinning	81	21.09
Working Experience		
Less than 1 year	28	7.29
1 to 5 years	176	45.83
6 to 10 years	120	31.25
Above 10 years	60	15.62
Living Area		
Urban	144	37.5
Rural	240	62.5

MEAN AND STANDARD DEVIATION		
Variables	Mean	Standard deviation
Management commitment	4.12	0.82
Safety training	3.86	0.78
Workers involvement	3.74	0.85
Safety communication & feedback	4.34	0.76
Safety rules & procedures	4.15	0.89
Safety promotion policies	3.84	1.14
Safety compliance	4.44	0.86
Safety participation	4.33	0.84
Ethical climate	3.12	1.04

relating to SMP, ethical climate and safety behaviour model. Thus, it is recommended that Textile companies must follow SMP and provide an ethical working atmosphere to reduce workplace injuries and accidents. The Pearson correlation method was incorporated to measure correlation among constructs. Hair et al. [65] stated that the recommended values of the correlation coefficient must be under 0.7 to avoid any multi-collinearity issue. Therefore, the correlation among all constructs was under the recommended threshold and provide satisfactory measurement.

For convergent validity table 5 depicts the values of AVE. Each value of AVE is higher than 0.5 which represents the appropriate level of convergent validity and goodness of fit of the model.

CONCLUSIONS AND DISCUSSION

Our study hypothesized that management commitment is positively related to safety behaviour. The result in table 5 depicted that management commitment is positively related to safety behaviour. It means that when top management is committed to safety-related activities employees voluntarily behave safely to maintain the decorum of the workplace. Similarly, one logical explanation of this significant relationship could be that the management of the Pakistani textile industry is genuine and pure to exhibit safety activities at the workplace. Likewise, the next hypothesis of the present study is that safety training is positively associated with safety behaviour. The result of table 6 indicated that it is a strong and positive relationship between safety training and

CONVERGENT AND DISCRIMINANT VALIDITY									
Variables	AVE	1	2	3	4	5	6	7	8
Management commitment	0.56	**0.74**							
Safety training	0.64	0.32	**0.8**						
Workers involvement	0.58	0.48	0.54	**0.76**					
Safety communication & feedback	0.62	0.59	0.63	0.56	**0.78**				
Safety Rules & Procedures	0.59	0.60	0.45	0.54	0.02	**0.76**			
Safety Promotion Policies	0.68	0.58	0.22	0.64	0.14	0.29	**0.82**		
Safety Behaviour	0.70	0.28	0.39	0.52	0.41	0.56	0.14	**0.83**	
Ethical Climate	0.73	0.49	0.44	0.22	0.56	0.41	0.55	0.16	**0.85**

Note: the boldface shows the square root of the average variance extracted (AVE).

RESULTS OF REGRESSION & PATH COEFFICIENT				
H+	Relationships	Coefficient	P-Value	Decision
1	Management commitment → Safety behaviour	0.359	0.000	Supported
2	Safety training → Safety behaviour	0.621	0.012	Supported
3	Workers involvement → Safety behaviour	0.238	0.003	Supported
4	Safety communication & Feedback → Safety behaviour	0.563	0.025	Supported
5	Safety rules & procedures → Safety behaviour	0.324	0.201	**Not Supported**
6	Safety promotion policies → Safety behaviour	0.566	0.000	Supported
7	Management commitment*Ethical climate → Safety behaviour	0.489	0.016	Supported
8	Safety training*Ethical climate → Safety behaviour	0.293	0.031	Supported
9	Workers involvement*Ethical climate → Safety behaviour	0.495	0.000	Supported
10	Safety communication & feedback *Ethical climate → Safety behaviour	0.326	0.019	Supported
11	Safety rules & procedures *Ethical climate → Safety behaviour	0.248	0.359	**Not Supported**
12	Safety promotion policies *Ethical climate → Safety behaviour	0.299	0.148	**Not Supported**

safety behaviour. A probable justification for this finding could be the adequate training resources of the Pakistani textile industry. The data is collected from the companies situated in Faisalabad city and Faisalabad is famous for its Textile work so it means the companies have a sufficient budget for spending on training activities. In addition, we hypothesized that workers' involvement is positively related to safety behaviour. Our result indicated that there is a strong and positive relationship between workers' involvement and safety behaviour.

A plausible explanation of this positive result could be the involvement of workers in the decision-making process. The management of the Pakistani textile industry indulges workers in safety-related meetings to empower workers. Empowering workers in safety activities provides better improvement in the workplace. Moreover, our study hypothesized that there is a significant and positive relationship between safety communication and feedback and safety behaviour. The result of this study indicated that safety communication and feedback have a positive and strong relationship with safety behaviour. The finding could be the result of an open communication among top management and workers which influence workplace safety and health. Effective communication could specify the issues and help them to solve them as soon as possible. In addition, the study also hypothesized that safety promotion policies have a positive relationship with safety behaviour. Our results provide a strong and positive association between this relationship. The result could be attributed to a strong reward and recognition approach which motivate Textile employees to behave safely. However, the reward could be in any form it could be an appreciation or it could be some monitory benefit.

Monitory benefits are very helpful for the workers as it is considered as a bonus for them which brings joy to their faces. At last, the present study hypothesized that there is a positive relationship between safety rules and procedures and safety behaviour. The result indicated that there is no relationship between safety rules and procedures and safety behaviour. The non-significant result could be due to weak rules and procedures relating to Textile companies. In Pakistan, there is no independent authority which is responsible for occupational safety and health rules. Likewise, in developed nations, they have proper authorities which make and implement workplace rules and procedures for specific industries. Pakistan is far behind in establishing safety rules according to the need of the industries. As far as moderating effects are concerned the present study provides a strong and positive moderating effect with management commitment and safety behaviour, safety training and safety behaviour, workers' involvement and safety behaviour and safety communication& feedback and safety behaviour. In simple words, when management is committed to providing adequate safety training and there is open communication in which every worker takes part in an ethical environment then the workers behave safely. In an ethical

work environment, the management is committed to providing appropriate facilities and in turn, the worker follows the safety protocol at the workplace. Similarly, ethical climate positively influences the relationship between safety training and safety behaviour. It means that the Textile companies provide an ethical environment in which workers are getting trained to avoid any unpleasant incident.

In addition, in an ethical work climate, the workers are involved in every decision of their company so their involvement brings a positive impact on their safety behaviour. The ethical climate also positively moderates the relationship between safety communication & feedback and safety behaviour. The result could be attributed to the fact that in an ethical climate open communication medium among workers and top management is mandatory which influences the safety behaviour of the workers. The presence of an ethical climate is the main pillar of a safe work environment. On the other hand ethical climate failed to moderate the relationship between safety rules and procedures and safety promotion policies. A possible explanation for these findings could be the absence of an ethical climate in the organization. Organizations which have set rules & standards have a positive impact on workplace safety. As mentioned earlier, in Pakistan there is a scarcity of safety-related legislation which could be one reason for the insignificant result. The absence of an ethical climate diverts the worker's minds to fulfil their daily safety-related task. Lack of work ethics could not promote workplace safety activities which failed to produce the desired results. Therefore, it is mandatory to have an ethical work environment with appropriate rules and procedures which can maintain workplace safety.

LIMITATIONS, IMPLICATIONS AND FUTURE DIRECTIONS

The present provides some useful insights relating to SMP, ethical climate and safety behaviour. However, this study has some limitations. The cross-sectional design was employed for data collection. In future, it is suggested that longitudinal design would apply to obtain better results. Similarly, in our study, the data was collected from Faisalabad city only. Therefore, in future, the data must be collected from other cities to increase the generalizability of the results. Moreover, our study was conducted under a quantitative approach. Future studies must follow mixed methods to decrease the doubts in results. Our study contributes additional evidence to the literature on SMP, ethical climate and safety behaviour. The present study verified the results conducted in developing countries as most of the studies were conducted in developed countries.

Crucial practical implications of this study are that the industries which are facing workplace injuries and accidents may be interested in this study. The results of this study may be fruitful for underdeveloped nations as they must follow the workplace safety rules of developed nations. Similarly, the present

study provides insights to the government and bureaucrats to develop a regulatory authority to minimize workplace injuries and accidents. It is recommended for future research that more SMP must be included to check it impact on safety behaviour. Our study checked ethical climate as a moderating variable. Future studies must include other variables (e.g. work environment) to test the moderating effect.

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