

**EFFECT OF SAFETY TRAINING PROGRAMS ON EMPLOYEES' PERFORMANCES**

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**Abstract**

The employees are the most valuable assets for the firms. They are known as the human capital. Their health and safety are the top priorities for any business enterprise. Safety Training Programs are an essential component of human resource development in manufacturing industries aimed at improving workplace safety, employee awareness, and organizational performance. With increasing industrial risks and technological complexity, organizations are emphasizing structured safety training to minimize accidents and enhance employee efficiency. The present study examines the effect of safety training programs on employees' performance using primary data collected from 116 employees working in KSPG Automotive India Pvt. Ltd. The study focuses on employees' familiarity with safety protocols, participation in safety training programs, training preferences, need for safety training, evaluation methods, communication channels, and confidence in emergency response. Data were analyzed using percentage analysis for clear interpretation. The findings reveal that safety training significantly improves employees' awareness, confidence, safe work behaviour, and overall performance. The study concludes that regular and structured safety training programs play a vital role in strengthening workplace safety culture and employee productivity.

**Keywords:** *Safety, Training, Employee performance, workplace safety, occupational safety, hazard awareness, emergency preparedness, safety culture*

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**1. Introduction**

The workplaces are considered as the second home for the employees since they spent almost half of the total time on daily basis. The workplace safety has become one of the most important components of modern industrial management due to the rapid growth of mechanization, automation, and complex production processes. Manufacturing industries involve multiple occupational hazards such as mechanical injuries, electrical risks, chemical exposure, and ergonomic problems. Therefore, organizations increasingly focus on safety training programs to protect employees and maintain operational efficiency. Safety training programs are systematic instructional processes designed to educate employees about workplace hazards, safe work practices, use of personal protective equipment, and emergency response

procedures. According to David L. Goetsch (2011), safety training provides workers with the knowledge and skills necessary to recognize hazards and apply preventive measures. Similarly, the Occupational Safety and Health Administration emphasizes that safety education plays a vital role in reducing workplace accidents and improving safety awareness. In industrial organizations, safety training is closely linked with employee performance because safe working environments reduce downtime, improve morale, and enhance productivity. Michael Armstrong (2020) states that training and development programs help improve both behavioural and technical competencies of employees, which directly influence organizational effectiveness. In manufacturing organizations such as KSPG Automotive India Pvt. Ltd., safety training programs are conducted regularly to ensure that employees remain aware of safety protocols and are prepared to respond effectively during emergency situations. The employees who are properly trained in safety procedures demonstrate better work efficiency, reduced accident involvement, and stronger safety behaviour. The emerging trends indicate that there is a rise of using high end technologies such as artificial intelligence to ensure the workplaces are safe for employees taking preventive measure and improving overall quality, efficiency (Gaikwad et al., 2024). The present study aims to examine the effect of safety training programs on employees' performance by analyzing employees' familiarity with safety protocols, participation in safety training activities, training preferences, evaluation methods, and confidence in handling emergency situations.

## **2. Objectives of the Study**

The present study has been undertaken with the following objectives:

- To study employees' familiarity with workplace safety protocols and procedures
- To examine employees' participation in different types of safety training programs
- To identify employees' preferences regarding safety training methods
- To analyze the need and frequency of safety training programs in the organization
- To examine the effectiveness of safety training in improving employees' awareness and behaviour
- To evaluate employees' confidence in responding to emergency situations after safety training
- To assess the impact of safety training programs on employees' overall performance

## **3. Review of Literature**

Health and safety training has increasingly been recognized as a strategic organizational intervention that significantly enhances employee performance by improving both productivity and operational efficiency. Contemporary research indicates that structured occupational health and safety programs enable employees to perform tasks more effectively while minimizing workplace risks and errors. Empirical evidence based on regression analysis demonstrates that organizations implementing systematic safety training frameworks experience improved work quality, reduced accident rates, and higher levels of employee engagement, thereby strengthening overall performance outcomes (Multazam, 2025). Moreover, safety training contributes to developing employees' technical competencies and procedural compliance, which are essential for maintaining consistency in task execution. Complementing this, recent studies highlight that the integration of safety training with workplace practices enhances employee productivity and performance levels (Alphonse & Rulinda, 2025).

The recent analytical studies using structural equation modeling reveal that health and safety initiatives significantly influence employee awareness, which in turn enhances performance outcomes by fostering responsible workplace behavior and adherence to safety norms (Bira, 2025). This indicates that training programs must go beyond procedural instruction to cultivate cognitive understanding and behavioral commitment among employees. Furthermore, workplace safety practices have been found to positively impact psychological well-being and engagement, particularly in complex and high-risk environments. Research also suggests that organizations emphasizing awareness-building through continuous training, communication, and reinforcement mechanisms are more successful in embedding a strong safety culture, which translates into sustained employee efficiency and reduced workplace incidents (Kokubun, 2025).

The trust, transparency and effective communication are the integral elements for the various training programs (Gaikwad, 2021). The employees are the valuable assets. Their health and safety have direct as well as indirect impact on the production, quality, branding, profits and sustainability. The training helps to bridge the skill gap, boosts the morale, motivate employees and maintain the level of job satisfaction. The periodical reviews, safety audits, mock drills, safety equipment are essential to comply with the standard norms

From a broader organizational perspective, health and safety systems are closely linked with employee satisfaction, motivation, and long-term performance sustainability. Studies on Health and Safety Management Systems (HSMS) demonstrate that effective implementation, supported by leadership commitment and adequate resource allocation, significantly improves employee satisfaction and organizational performance (Chatzoglou et al., 2025). Additionally, systematic review evidence indicates that occupational health and safety practices contribute to higher job satisfaction, which subsequently leads to improved productivity, reduced absenteeism, and stronger employee retention rates (Ratna et al., 2025). Extending this perspective, recent research on sustainable performance highlights that innovative safety training and a strong safety climate serve as critical drivers of long-term employee effectiveness and organizational sustainability, emphasizing the strategic importance of integrating safety practices into core human resource and operational frameworks (Abbas, 2025).

#### **4. Research Methodology**

The present study adopts a descriptive research design to examine the effect of safety training programs on employees' performance in KSPG Automotive India Pvt. Ltd. The study is empirical in nature. Hence, primary data is collected. Primary data were collected through a structured questionnaire administered to employees who have participated in safety training programs. The questionnaire included close-ended questions related to safety awareness, participation in safety training, safety communication, emergency preparedness, and evaluation methods. The total number of employees working in the organization is 463 as sample size for the study which constitutes the universe of the study. Out of the total population, 25% employees (116 respondents) were selected for the study. The purposive sampling technique was used to select employees who had exposure to safety training programs to ensure relevance of responses. The collected data were analyzed using percentage analysis for simple and clear interpretation of employee responses.

#### **5. Data Analysis and Interpretation**

The data collected from 116 employees of KSPG Automotive India Pvt. Ltd. have been analyzed to understand the effect of Safety Training Programs on employees’ performance. The analysis is presented table-by-table with interpretation.

**Table 1: Familiarity with Safety Protocols and Procedures at Workplace**

Sr. No	Familiarity Level	F	%
1	Very familiar, understand and follow all safety protocols	73	63%
2	Moderately familiar, aware of most safety protocols	27	23%
3	Somewhat familiar, know basic safety guidelines	16	14%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table shows that the majority of employees (63%) are very familiar with workplace safety protocols and procedures, indicating strong awareness created through safety training programs. About 23% of employees reported moderate familiarity, while 14% possess only basic knowledge of safety guidelines. The results suggest that safety training programs play an important role in improving employees’ understanding of workplace hazards and safe practices, which directly contributes to improved employee performance and reduced accident risks.

**Table 2: Employees’ Participation in Safety Training Programs**

Sr. No	Type of Safety Training	No. of Respondents (Multiple Responses)	%
1	Fire safety and emergency evacuation	106	91%
2	Workplace ergonomics and injury prevention	90	78%
3	Hazardous material handling	86	74%
4	Electrical safety	109	94%
5	Machine and equipment safety	110	95%
6	PPE usage	116	100%
7	Workplace violence prevention	95	82%

The table indicates that employees have participated in multiple types of safety training programs. All employees (100%) reported training in the use of Personal Protective Equipment (PPE), followed by machine safety (95%) and electrical safety (94%). Fire safety training was attended by 91% of employees. These findings show that the organization conducts comprehensive safety training programs covering

various workplace hazards, which significantly enhances employees’ awareness and operational safety behaviour.

**Table 3: Preference to Participate in Safety Training Program**

Sr. No	Training Preference	F	%
1	In-person workshops/seminars	25	22%
2	Online courses/webinars	10	9%
3	Practical hands-on training	35	30%
4	Combination of online and offline training	46	39%
<b>Total</b>		<b>116</b>	<b>100%</b>

The table shows that 39% of employees prefer a combination of online and offline training methods, while 30% prefer practical hands-on training sessions. Only 9% prefer online training alone. This indicates that employees find practical and blended learning approaches more effective for understanding safety procedures and applying them in real workplace situations.

**Table 4: Need of Safety Training Programs**

Sr. No	Need of Safety Training	F	Percentage
1	Once a yea	55	47%
2	Twice a year	25	22%
3	Quarterly	20	17%
4	As needed (when changes occur)	16	14%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table presents employees’ opinions regarding the required frequency of safety training programs in the organization. A majority of respondents (47%) indicated that safety training should be conducted once a year. This suggests that employees consider annual safety training sufficient for refreshing knowledge and reinforcing safety practices under normal working conditions. However, a significant proportion of employees (22%) suggested that safety training should be conducted twice a year, indicating the need for more frequent reinforcement of safety awareness. Further, 17% of employees recommended quarterly training programs, which reflects the perception that continuous safety education is necessary in environments involving machinery, hazardous materials, and technical operations. Additionally, 14% of respondents stated that safety training should be conducted whenever there are

changes in safety procedures, equipment, or work processes. This response highlights the importance of dynamic and flexible safety training aligned with organizational and technological changes.

**Table 5: Ways of Effectiveness of Safety Training and Awareness at Workplace**

Sr. No	Methods	F (Multiple Responses)	%
1	Regular safety inspections and audits	116	100%
2	Safety posters and reminders	80	69%
3	Safety drills and simulations	106	91%
4	Ongoing safety communication	55	48%

The above table explains the methods that employees consider effective for improving safety awareness and reinforcing safety training outcomes at the workplace. It is observed that all respondents (100%) identified regular safety inspections and audits as the most effective method. This indicates that monitoring workplace conditions and checking compliance with safety rules play a major role in maintaining a safe working environment. A large number of employees (91%) also reported that safety drills and simulations are highly effective. This reflects the importance of practical exposure in safety training, as drills help employees understand how to respond quickly and correctly during emergency situations such as fire accidents, equipment failures, or chemical hazards. Practical demonstrations strengthen confidence and improve real-time decision-making abilities. Safety posters and visual reminders were supported by 69% of employees, suggesting that visual communication tools help reinforce safety rules in daily work activities. Such tools serve as constant reminders and help reduce unsafe behaviour. Meanwhile, 48% of respondents identified ongoing safety communication, such as meetings and discussions, as an effective method. This indicates that regular interaction between management and employees enhances awareness and promotes a strong safety culture.

**Table 6: Method of Evaluation of Safety Training**

Sr. No	Evaluation Method	F	Percentage
1	Online quizzes or assessments	27	23%
2	Practical exercises and simulations	60	52%
3	Group discussions and case studies	29	25%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table shows the methods used to evaluate the effectiveness of safety training programs. The majority of respondents (52%) indicated that practical exercises and simulations are the most effective evaluation methods. This demonstrates that employees prefer performance-based assessment rather than purely theoretical testing. Practical evaluation helps employees apply safety procedures in real-life situations and improves behavioural learning outcomes. About 25% of respondents preferred group

discussions and case studies as evaluation methods. This suggests that interactive learning techniques help employees understand workplace safety issues through real examples and shared experiences. Discussion-based evaluation also promotes teamwork and safety awareness among employees. Meanwhile, 23% of employees supported online quizzes and assessments. Although theoretical evaluation helps measure knowledge levels, it may not fully assess practical safety skills required in industrial environments.

**Table 7: Role of Supervisors and Managers in Enforcing Safety Training**

Sr. No	Supervisory Role	F	%
1	Very important	58	50%
2	Moderately important	34	29%
3	Not important	24	21%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table highlights employees’ perceptions regarding the role of supervisors and managers in implementing and enforcing safety training practices at the workplace. Half of the respondents (50%) reported that supervisory support is very important for maintaining safety standards. This indicates that leadership involvement plays a significant role in ensuring employees follow safety procedures consistently. About 29% of employees considered the role of supervisors moderately important. This suggests that while safety training increases awareness, managerial monitoring still helps reinforce safe behaviour and compliance with safety rules. However, 21% of respondents stated that safety is an individual responsibility and does not depend heavily on supervisors. This response reflects that some employees believe personal awareness and discipline are sufficient for maintaining safety practices.

**Table 8: Confidence about Ability to Respond in Emergency Situations**

Sr. No	Confidence Level	F	%
1	Very confident	70	61%
2	Moderately confident	34	29%
3	Not confident	12	10%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table explains employees’ confidence levels in responding to emergency situations after participating in safety training programs. A majority of respondents (61%) reported that they are very confident in handling emergency situations such as fire incidents, equipment failures, and workplace hazards. This indicates that safety training programs are effective in developing practical knowledge and psychological preparedness among employees. About 29% of employees stated that they are moderately confident and may require additional training for better understanding of emergency procedures. This suggests that while safety training has improved awareness, continuous refresher training is necessary to

strengthen employees’ practical skills and response time. However, 10% of employees reported that they are not confident in responding to emergencies. This highlights the need for more practical drills, demonstrations, and simulation-based training to improve emergency preparedness.

**Table 9: Ways of Updating Safety Practices**

Sr. No	Methods	F	%
1	Regular email updates	25	22%
2	Monthly/quarterly safety meetings	24	20%
3	Online safety resources	15	13%
4	Combination of all methods	52	45%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table shows the methods preferred by employees for updating safety practices in the organization. A significant proportion of respondents (45%) preferred a combination of multiple communication methods such as emails, meetings, and online resources. About 22% of employees preferred regular email updates, suggesting that digital communication plays an important role in providing timely safety information. Meanwhile, 20% preferred monthly or quarterly safety meetings, indicating that interactive discussion helps in better understanding safety practices. Only 13% of employees preferred online resources alone, which suggests that self-learning methods are less effective compared to combined communication approaches.

**Table 10: Preference to Report Safety Incidents at Workplace**

Sr. No	Reporting Method	F	%
1	Directly to supervisor/manager	90	78%
2	Anonymous reporting system	16	14%
3	Suggestion box/reporting area	10	8%
<b>Total</b>		<b>116</b>	<b>100%</b>

The table explains employees’ preferred methods for reporting safety incidents at the workplace. A large majority of respondents (78%) preferred reporting incidents directly to supervisors or managers. This indicates a strong communication relationship between employees and management and suggests that employees trust formal reporting channels. About 14% of respondents preferred anonymous reporting systems. This may indicate that some employees feel more comfortable reporting incidents without revealing their identity, possibly due to fear of blame or workplace pressure. Only 8% of employees preferred suggestion boxes or designated reporting areas. This shows that indirect reporting methods are less effective compared to direct communication.

Table 11: Effectiveness of Safety Communication Channels at Workplace

Sr. No	Communication Effectiveness	F	%
1	Very effective	65	56%
2	Moderately effective	36	31%
3	Not effective	15	13%
<b>Total</b>		<b>116</b>	<b>100%</b>

The above table presents employees' opinions regarding the effectiveness of current safety communication channels in the organization. More than half of the respondents (56%) stated that safety communication channels are very effective and provide timely and useful information. This indicates that the organization maintains a structured safety communication system. About 31% of employees reported that communication is moderately effective and needs improvement in terms of frequency and clarity. This suggests that regular reinforcement of safety messages can further strengthen safety awareness. However, 13% of employees felt that safety communication is not effective. This indicates that some gaps may exist in information delivery or communication methods.

## 6. Conclusion

The present study examined the effect of Safety Training Programs on employees' performance in a manufacturing organization. The analysis indicates that safety training plays a significant role in improving employees' awareness, behaviour, and confidence regarding workplace safety practices. The findings reveal that employees who participate in structured safety training programs demonstrate better familiarity with safety protocols, improved emergency preparedness, and stronger safety behaviour. Practical training methods such as drills, simulations, and hands-on exercises were found to be more effective than theoretical approaches. Continuous safety communication and supervisory support further enhance the effectiveness of safety training. The study also highlights that regular evaluation methods and frequent safety updates are essential for maintaining safety standards. The organizations should therefore conduct periodic safety training programs, strengthen communication channels, and encourage employee participation in safety practices to reduce workplace hazards and improve productivity.

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