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Evaluating the Occupational Risk Reduction Adoption Behavior in Textile Sector: An Analysis Using the Theory of Planned Behavior

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Abstract
This study examines the adoption of risk reduction practices in the weaving and spinning sub-sector of textile, in Faisalabad Pakistan by employing primary data. Theory of Planned Behavior support theoretical framework to examine the factors affecting adoption behavior. Principal Component Analysis (PCA) is employed to extract indices on certain variables such as subjective norms, perceived behavioral control, awareness, organizational and government factors, whereas experience, and qualifications are demographic variables. Subsequently, a multiple regression analysis performed to investigates the relationships between various predictors including and the dependent variable, adoption practices for risk reduction. The regression analysis reveals that awareness, subjective norms, perceived behavioral control and organizational factors adversely but significantly influence adoption, which shows the organizational fail to follow the labor act and OSHA regulation and employees have lack of awareness about acts and not properly follow the OSHA compliance. Whereas government factors show significantly and positively effect on adoption. The model accounts for R^2 are 67.3% of the variation in adoption, underscoring the significance of both organizational and government factors in fostering adherence to risk reduction activities. These findings offer practical insights for organization seeking to improve safety and compliance in textile industry.

Keywords: Risk Reduction Adaptation, Theory of Planned Behavior, Multiple Regression, Textile Industry, Faisalabad Pakistan

Introduction

Occupational risk is the uncertain conditions at work place which can lead to an accident or serious health consequences at work place as likelihood of incidents (Koçali, 2022; Viner, 2015). The occupational risk defines the probability of injury or illnesses arising from exposure to workplace risks. The concept of occupational risk is based on two dimensions: the likelihood of a certain injury or disease occurring, and the possible severity of that injury or illnesses. (Ezzati et

al., 2004). The term "hazard" broadly describes situations that can result in harm or loss adversely affecting human health and wellbeing at workplace named as occupational hazards. Additionally, Occupational risks in the workplace can lead to health issues for employees (Cameron & Raman, 2005). Identifying hazards is the first step in assessing the risk (Henley & Kumamoto,1996) which include following categories as biological hazards, ergonomic hazards, psycho-social hazards, chemical hazards, and physical hazards (Murphy et al., 2016; Baron-puda, 2015). The working place can impact both the stress levels of employees and their overall psychological and physical health (Warr, 1992). The work place hazards cause accidents, leading to economic, social, environmental, and human losses (Henley & Kumamoto,1996). Inadequate working conditions may lead to a mismatch between individuals and their environment, increasing the likelihood of work-related stressors, mental health issues, and occupational accidents (Li et al., 2001). It negatively impacts workers' health and safety, and overall well-being (Theorell et al., 2015; Kivimaki et al., 2006). A poor workplace conditions also negatively effect on motivation and harm to employees (Anjum et al., 2018). Moreover, workplace environment (Yam et al., 2018; Al-Hamdan et al., 2017), and organizational factors impacting employee retention as well (Yam et al., 2018). The expansion of industrialization and commercial operations without implementing adequate safety measures has raised significant concerns over the Occupational Health and Safety (OHS) of employees in numerous rising nations in the developing world. The OHS seeks to safeguard the well-being of the employees by identifying, evaluating, and mitigating risks in the workplace. (Alli, 2008). It is crucial for Identifying, assessing, and reducing these potential risks to improve employee's safety and productivity (Mohammadinejad et al., 2019). Not only managing occupational risks lead to an unsafe workplace, but also cause of accidents, and fatal diseases (Malik, 2010). International labor organization (ILO) and world health organization (WHO) define occupational health as achieving the highest level of mental, physical, and social well-being for all workers. Therefore, OHS practices are important for employee protection. (Bakri et al., 2006).

Additionally, ILO defines OHS in Convention No. 161 as services primarily focused on prevention, tasked with advising employers, workers, and their representatives on the necessary measures to create and sustain a safe and healthy work environment that promotes optimal physical and mental health, while also adapting work to the abilities of employees based on their physical and mental health status. The objectives of OHS systems are three-fold: (i) to sustain and enhance workers' health and work capability; (ii) to improve workplace environment and (iii) to develop work organizations and cultures that support health and safety, and lead to increase productivity (World Health Organization, 2002). OHS work as a multidisciplinary team to improve health, the working environment, workers' well-being, and health and safety structures and management (Fedotov, 2005). It is essential for worker health and performance (Rantanen et al., 2013). By integrating health policy with learning, the environment, accessibility, and social protection, OHS systems help sustain the employee's welfare. Occupational health policy emphasizes workers' social protection, funding, and compulsory accident compensation. Because better working conditions boost national growth and are vital to successful economic and social policies (Benavides et al., 2017). Employers and OHS must prevent, protect, and promote health in line with safety and wellness. In many industrialized countries, employers are responsible for implementing prevention measures and promoting occupational health and safety. They fund occupational health services to improve workplace health, safety, and well-being (Hämäläinen, 2008).

But OHS protocols were neglected, and large-scale national economies undermine the efficiency and productivity of firms at the micro level. Activities, including safety inspections, training, and the execution of safety plans, are performed inadequately. Moreover, considering that a substantial proportion of occupational accidents results from unsafe work place environment (Lee et al., 2021). The numerous regulations exist at both national and international levels within the framework of OHS standards to ensure that employees can perform their duties in a healthy and safe environment. In many instances, organizations undertake activities for OHS compliance to fulfill legal requirements. Nonetheless, implementing OHS procedures in workplaces has advantages that extend beyond just compliance with regulatory requirements. Performance in workplaces is believed to be enhanced by minimizing accidents and injuries through the implementation of safety improvement initiatives (Sulzer-Azaroff et al., 1990). There are numerous latest literature that has found on occupational accidents and its adoption behavior for risk reduction (Velmurugan et al., 2022; Bathrinath et al., 2021; Di Bona et al., 2021). For instance, Tasdemir, (2020) studied on enhancing the safe environment and adaptation. Moreover, occupational health and safety policies that foster a safe environment enhance employee performance and efficiency. Ridzuan and Noh (2024) focused to enhance safety compliance, decrease accident rates, and foster a safer workplace environment. Casey et al. (2017) studied on environment safety alongwith organizational performance. Nielsen et al. (2024) carried out adoption in healthcare sectors' workers and organizational intervention. Lim et al. (2023) identified the risks and adoption. Shahbaz et al. (2022) examined the influence of several sustainable home consumption habits on environmental cleanliness and the determinants influencing the adoption practices. Guerin & Sleet (2021) conducted a study on work-related illnesses and fatalities were enduring public health issues across all industrial sectors. Guerin (2017) conducted a study on Adolescent laborers face a heightened risk of injury and adoption. Nunoo et al. (2025) elucidate the determinants influencing employee's intention and actual behaviors for adoption.

However, organizational resources are not consistently managed efficiently (Pfeffer, 2010). Insufficient employers' energy to create safer workplace environment can lead to negative outcomes, including burnout (Demerouti et al., 2001), stress (Sonnentag et al., 2010), or job resignation (Schaufeli et al., 2009). Adverse conditions, including heightened job demands, extended working hours, perpetual change, technology obscuring the distinction between work and home life, augmented burden, and a risk of job loss, contribute to the declining vitality in the workplace. An adverse safety climate negatively affects workplaces. Casey et al. (2017) contend that safety climate is fundamental for companies to enhance their safety capacity, and that the environment safety and control procedures regarding work systems can be maintained alongside the organization's productive performance. Numerous prior meta-analytical research (Nahrgang et al., 2011; Christian et al., 2009) have repeatedly demonstrated that individuals engage in safer work practices when a communal social context exists that prioritizes and values safety. Sutherland and Hofmeyr (2012) identify recognition, job security, and managerial support as the primary components that generate productive corporate energy. Based on the aforementioned grounds, it is proposed that a positive association exists between the dimensions of environment safety and productive organizational activity. Formalization, as factor of organizational structure, significantly influences a business's performance indicators. Formalization denotes the extent to which an organization formulates and implements written policies, procedures, and role descriptions to regulate its activities (Victer, 2020). In the manufacturing industry, the complexity of hierarchical structures does not significantly affect the statistical significance of enhanced

organizational performance (Ahmada & Fakhr, 2022). The formalization frameworks substantially affect employees' attitude towards productivity and their dedication to their firms (Gibson et al., 2019; Hempel et al., 2012). In the manufacturing sector, formalization sometimes requires the development of comprehensive job descriptions that delineate the activities, responsibilities, and expectations associated with each role (Darbinyan, 2018). These role descriptions delineate the tasks, duties, and authority associated with each position of employees (Skorková, 2020). Organizations can develop training programs customized to the precise responsibilities and competencies required for each individual's function by explicitly defining individual job duties. Organizations can continually enhance employee performance by recognizing chances for greater efficiency and implementing necessary remedial measures (Ohler et al., 2018). Documents, consequently, provide a function due to their position in formalization.

The prior research emphasized on many others sectors and aspect of adoption behaviors such as Nunoo et al. (2025) energy sector, Nielsen et al. (2024) employees of healthcare sectors, Ridzuan and Noh (2024) Maintenance Workers, Lim et al. (2023) identified the construction industry, Shahbaz et al. (2022) sustainable home consumption habits and environmental cleanliness, Guerin & Sleet (2021) across all industrial sectors, Guerin (2017) Adolescent laborers, Mutyebere et al. (2023) agriculture sectors (smallholder farmers' exposure), Ouanhlee (2024) manufacturing industry environment, Zhang et al. (2025) Whistleblowing by public employees in potent anti-corruption mechanism, Akter et al. (2024) cybersecurity sector, Gaviola et al. (2024) brick kiln laborers. These studies have insufficiently investigated how these particular risk factors compel individuals to implement practices aimed at reducing their vulnerability to diverse workplace risks. The past research also failed to investigate a comprehensively impact of occupational risks and its adaptation. Whereas, the Theory of Planned Behavior (TPB) has been extensively employed to examine adoption behaviors; however, there exists a notable deficiency in the literature about its application to particular risk reduction adoption for employees relevant to the textile industry, especially within the spinning and weaving sub-sectors. Therefore, this present study includes a comprehensive adoption behavior of employees against the economic, social, workplace environmental, health, psychological and operational risks as well an organizational and governmental factor in the light of Occupational Safety and Health Administration (OSHA) regulation and labor acts (wage and compensation). This research seeks to address this gap by incorporating comprehensively occupational risks and adoption behaviors into the Theory of Planned Behavior framework. Thereby providing pertinent insights for policymakers to promote risks reduction practices, enhance the employee's motivation towards retention, and improve employee's performance, safety and well-being.

Literature Review

Nunoo et al. (2025) used the theory of planned behavior to elucidate the determinants influencing employee's intention and actual preparedness behaviors within the Ghanaian energy sector. The study determined the influence of psychological factors on employee preparedness intentions and investigated whether these elements were mediated by the employees' intents. The analysis was organized into three primary sections: the first section contained demographic information, the second included items related to attitude, response efficacy, subjective norms, perceived behavioral control, intention, risk perception, and actual preparedness behaviors, while the final section addressed management commitment and management priority. The data were analyzed using structural equation modelling techniques. The novel extended TPB model effectively elucidated

employee readiness intentions and actually emergency preparedness behaviors, corroborating the prevalent belief that psychological factors impact employee preparedness intents.

Nielsen et al. (2024) research was carried out at two Italian hospitals involved in an organizational intervention, comprising 1,654 healthcare personnel. it performed exploratory factor analysis on one half of the data and cross-validated the optimal factor structure obtained using confirmatory factor analysis on the remaining half of the sample. The findings indicated that the Intervention Preparedness Tool, consisting of seven items, possesses a three-factor structure: preparedness for change, intervention-context fit, and communication. We conducted nomological validation by correlating the Intervention Preparedness Measure with seven psychosocial working conditions: demand, control, peer support, supervisor support, roles, relationships, and changes, as well as job satisfaction. The components of the Intervention Preparedness Measure were highly correlated with working conditions and job satisfaction, indicating that the organizational setting might impact participants' evaluations of the initial stages of participative interventions.

Ridzuan and Noh (2024) examined the psychological, social, and organizational determinants affecting safety behaviors among maintenance employees in Malaysia. Its objective was to enhance safety compliance, decrease accident rates, and foster a safer workplace environment. The research employed the TPB to analyses attitudes, subjective norms, and perceived behavioral control. Despite safety standards and laws, incidents continue to transpire due to these factors. This research aimed to examine the behavioral elements influencing the safety practices of maintenance workers. The results demonstrated that seasoned employees comply with safety rules more consistently, underscoring the necessity for training, efficient communication, appropriate equipment usage, and good attitudes to mitigate accidents. Future research should focus on longitudinal studies and technological innovations to improve safety behaviors, decrease accident rates, and cultivate a safety culture among maintenance workers, taking into account various demographic factors.

Lim et al. (2023) identified the construction industry as one of the most perilous due to the complexities and uncertainty inherent in construction projects. This research presented a TPB model to forecast the safety compliance intentions of construction workers by examining key beliefs, including attitudinal, normative, and control beliefs. Data was gathered using an online questionnaire featuring open-ended questions, distributed to specialists involved in construction projects in Malaysia. A total of 15 participants engaged in this study and articulated their prominent beliefs concerning the goal of safety compliance. The beliefs gathered from the online survey were subjected to conceptual content analysis and classified into six stable sets of theoretical conceptions. Attitudinal Beliefs were subdivided into Perceived Relative Advantages, Normative Beliefs were categorized into Facilitating Conditions, and Control Beliefs were classified into project management teams, local workers, overseas workers, and subcontractors. A modified conceptual TPB model was constructed to forecast safety compliance intentions and actual compliance behaviors within the construction sector, grounded in the established theoretical foundations.

Shahbaz et al. (2022) established that governments worldwide were looking for sustainable ways to alleviate pressure on natural resources and diminish carbon emissions. This study examined the influence of several sustainable home consumption habits on environmental cleanliness and the determinants influencing the adoption of such practices in Pakistan. The factor analysis and an ordered probit analysis were employed to examine the data from 1,424 participants selected via a

multistage random sampling method. The factor analysis revealed 35 sustainable household activities for sustainable consumption. The 35 practices were categorized into three fundamental factors: Food, Energy and Water. The econometric model results indicated a substantial correlation among gender, education, residential area, family size, income, and the adoption of sustainable household consumption habits. According to statistics, high levels of sustainable consumption practices were observed among females, urban households, those with higher education, larger families, and wealthier households.

Guerin & Sleet (2021) conducted a study indicating that work-related illnesses and fatalities were enduring public health issues across all industrial sectors in the United States, including healthcare. Individuals engaged in healthcare and social services were at significant risk of sustaining work-related accidents and diseases. Theories from social and behavioral sciences served as valuable instruments for crafting interventions aimed at preventing workplace accidents and illnesses, while also offering a framework for examining the multifaceted elements that might obstruct or enhance worker safety and health. Individual-level behavioral change theories were valuable for assessing the immediate, person-specific factors (such as perceived behavioral control) that affect workplace safety outcomes. This article (1) provided a concise summary of prevalent individual-level behavior change theories and their application to OSH interventions within the health care sector; (2) presented an integrated theory of behavior change and its relevance to enhancing the OSH of health care workers; and (3) addressed workers. Utilizing behavioral science to examine the impact of individual behaviors on health promotion and disease and injury prevention provided an essential supplement to structural strategies for safeguarding workers in the healthcare sector.

Guerin (2017) conducted a study on Adolescent laborers face a heightened risk of injury. Health behavior theories provided a framework for developing school-based interventions to safeguard young workers. Data from pretests and posttests of 2,503 eighth-grade students were gathered, and structural equation modelling (SEM) was utilized to evaluate the effectiveness of an adapted theory of planned behavior (TPB) in analyzing adolescents' knowledge, attitudes, perceived behavioral control (self-efficacy), and behavioral intentions regarding OSH. The SEM findings indicated that the updated TPB model sufficiently aligned with the data. Overall, path coefficients were highly significant and aligned with theoretical expectations. The latent model constructs accounted for a greater amount of variance than findings from analogous teen health studies. Knowledge exerted indirect influences on behavioral intention via attitude and self-efficacy. This study addressed a deficiency in health behavior research by offering empirical evidence of the indirect influence of knowledge on other proposed dimensions of the Theory of Planned Behavior. This study was the inaugural research to endorse a modified TPB for assessing teenagers' occupational safety and health (OSH) knowledge and views, so enhancing the evidence basis for measuring and evaluating successful interventions to safeguard young workers.

Material and Methods

Theoretical framework

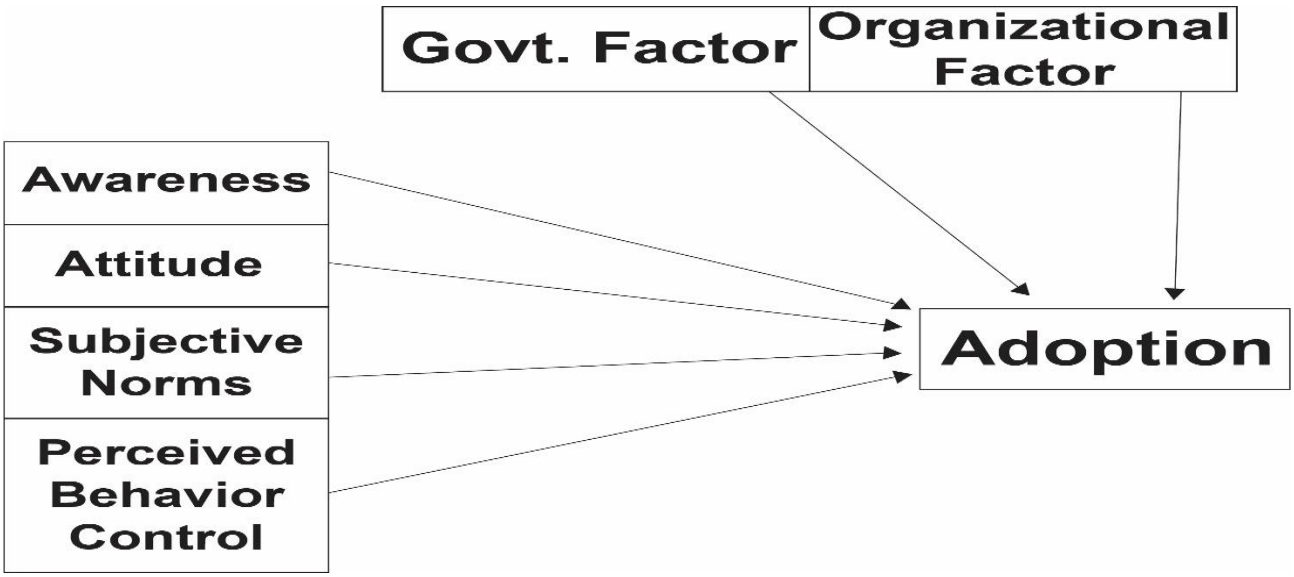
Theory of planned behavior fundamentally pertains to an individual's activities, typically driven by robust intents (Fishbein & Ajzen, 2011). Intention is a projected result that directs planned behaviors and reflects the extent of an individual's commitment to engage in a behavior (Fishbein & Ajzen, 1975). Predicting intention is inherently complex, influenced by external factors including socio-demographic characteristics and inner factors including social-psychological

elements like attitude, subjective norm, and perceived behavioral control, which are largely unobservable (Bamberg & Moser, 2007). Expanding from the theory of reasoned action (Fishbein & Ajzen, 1975), the Theory of Planned Behavior (TPB) was introduced to elucidate social-psychological behavior. The Theory of Planned Behavior (TPB) posits that intention is shaped by three components. Attitude is intrinsically connected to personal ideas and one's assessment of the positivity of an activity. Subjective norm denotes the perceived social pressure exerted by significant persons, including family and friends. PBC denotes an individual's perceived capacity to engage in or exert volitional control over a behavior, serving as a surrogate for real control when the latter cannot be precisely assessed (Ajzen & Klobas, 2013). All else being equal, a more positive attitude and subjective norms, along with a higher perceived behavioral control (PBC), should correlate with a stronger intention to engage in an activity ((Fishbein & Ajzen, 2011; Fishbein & Ajzen, 1975). The intensity of intention correlates positively with the likelihood of behavior execution. (Fishbein & Ajzen, 2011; Ajzen, 1991) contended that individuals must possess intentional influence over a behavior for intention alone to adequately forecast behavior. In the presence of insufficient volitional control (e.g., absence of necessary skills or resources), analyzing the direct impact of perceived behavioral control on actual behavior may enhance predictive accuracy (Armitage et al., 2002). Moreover, in the original formulation of the reasoned action approach and the Theory of Planned Behavior (TPB), subjective norm was characterized by the perceptions of significant persons regarding the execution of a behavior (Fishbein & Ajzen, 1975). Nonetheless, Fishbein and Ajzen, (2011) indicate the necessity to further investigate the two subdimensions of subjective norms: injunctive norm, which pertains to the perceptions (desires) of significant others regarding whether we should engage in a behavior, and descriptive norm, which relates to perceptions (actions) of others regarding their engagement (or lack thereof) in a specific behavior. To achieve robust inter-indicator and indicator-to-construct correlations necessary for reflective measurement models, stringent compliance with the principle of compatibility in measure formulation is essential. According to Fishbein and Ajzen, (2011), compatibility can be delineated as: (1) behavioral compatibility, which pertains to the definition of conduct as determined by measurements of intention. (2) scale compatibility, which underscores the necessity for the scales employed to assess intentions to be congruent, and (3) category compatibility, which mandates that the criteria defining the behavioral categories must be harmonious. The principle of compatibility emphasizes the necessity to delineate and evaluate all the TPB constructs that quantify a specific behavior concerning the target (T) of the behavior, the action (A) to be executed, the context (C) in which the behavior transpires, and the time (T) period, referred to as the TACT Principle (Sok et al., 2021).

The TPB framework's principal limitation is its acknowledgment that cognitive beliefs (attitude, subjective norm, and perceived behavioral control) are influenced by background conditions, however it fails to delineate the sources of these beliefs within the model. Rather, it suggests that the selection of these factors is an empirical inquiry (Ajzen, 1991; Fishbein & Ajzen, 1975). Background factors, including socio-demographic elements, knowledge, and social networks, may influence beliefs, categorizing them as observational, inferential, or informational based on their creation process. The present study examines informational beliefs and contends that individuals' beliefs on the adoption of DRR measures are influenced by the information to which they are exposed. Furthermore, the individual-level metric of knowledge is anticipated to correspond with their position within the social hierarchy, which may potentially elucidate adoption behavior. Sok et al. (2021) delineated multiple methods for incorporating background variables into regression models. Most studies utilizing the Theory of Planned Behavior (TPB) gather data on background

factors primarily to characterize the sample, while others employ this information to segment the population for subgroup comparisons, and some (Pérez-Macías et al., 2020) incorporate these elements into the models as control variables. Furthermore, Fishbein and Ajzen (1975) suggested that, in addition to attitude, subjective norm, and perceived behavioral control (PBC), other factors can only affect behavior when mediated by these three dimensions. Several studies, such as (Anwar et al., 2020; Umeh & Patel, 2004), have examined potential moderator interactions including background factors in addition to the independent effects of the TPB constructs.

Figure 1. Conceptual Framework



Justification of study sector-Textile sector and study area

Pakistan is the 9th largest exporter of textile products, the 5th largest producer, and the 3rd largest consumer of cotton in Asia. The textile industry is the most prominent manufacturing sector in Pakistan. Cotton is employed across its value chain in Pakistan, encompassing spinning, fabric manufacturing, dyeing and finishing, cosmetics, and clothing. Forty percent of the workforce is engaged in the textile sector, accounting for sixty percent (60%) of national exports. A report (fashionating world, 2024) indicates that Pakistan's textile exports rose by 20% year-on-year to $1.41 billion in February 2024, up from $1.18 billion during the same time in 2023, according to data from the APTMA. A report released by the Board of Investment (BOI) indicates that the industry consists of 517 textile units, including 477 spinning units and 40 composite units. Punjab houses 332 spinning, 23 composite, and the 251 units are in Faisalabad. The global demand for textile garments rose to one trillion dollars in 2020 and is anticipated to attain 1.5 trillion dollars by 2027 (Zhang et al., 2024).

Data Collection

A self-constructed questionnaire is employed to gather primary data concerning the various factors that may affect risk reduction adoption. Data is collected by face-to-face interviews employing questionnaires aimed at employees in the textile industry (weaving and spinning sectors) in Faisalabad. The questionnaire includes critical enquiries concerning diverse risk mitigation aspects such as employee attitudes, subjective norms, perceived behavioral control, and awareness, along with the roles of organizations and government, employing a 5-point Likert scale. The study

employs convenience sampling for data collection and utilizes Cochran's (1977) method to ascertain the sample size.

$$N = \frac{z^2.p(p-1)}{e^2}$$

Model Specification

Multiple Regression

We developed the subsequent model to assess the impact of risk-reducing components (attitude, subjective norms, perceived behavioral control, awareness, and the roles of organizations and government) on the adoption of risk reduction practices.

Risk Reduction Adoption = β_0 + β_1*Attitude* + β_2*Subjective norms* + β_3*Perceived behavior control* + β_4 *Awareness*$_i$ +β_5 *Organizational factors* + β_6 *Government factors*+ β_7 *Experience* + β_8 *Qualification* + e_i

The dependent variable is the adoption for risk reduction, and the explanatory variables such as Awareness, attitude, subjective norms and perceived behavior control, organizational and governmental factors measured using a Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Principal Component Analysis (PCA) is employed to create indices which is multivariate statistical technique designed for dimensionality reduction in complex datasets while preserving their variance (Jolliffe and Cadima, 2016). Cronbach's Alpha is utilized to evaluate the reliability of data (Santos, 1999). The demographic variables are experience and qualification, with an error term (e). The multiple regression has been employed for analysis.

Variables Description

Variables	Questions/Description	Likert Scale
Adoption	*To what degree do you effectively employ the following practices for risk reduction?*	*1 (strongly agree) to 5 (strongly disagree)*
	To follow the Factory acts;	
	Follow the OSHA regulation	
	Reporting of unsafe conditions, machinery etc.;	
	Participate in training and education	
	Utilization of personal protective equipment	
	Provision of adequate support and resources by employers	
Awareness	*To what extant you have the knowledge or awareness about followings;*	*1 (strongly agree) to 5 (strongly disagree)*
	The workplace risks which you are facing	
	Occupational health and safety regulation	
	Payment of Wages Act 1936 (Overtime, Bonus, Medical Benefits)	
	Workmen's Compensation Act 1923 (Group Insurance, Death, Injury)	
	Old Age Benefits (Pension, retirement)	

	Social Security Card (Free Medical)
Attitude	Do you believe the Act (Payment of Wages Act 1936) provides adequate protection to employees?
	To what extant favorable the Act's provisions (Workmen's Compensation Act 1923) for employees?
	To what extant do you think these acts are important for employees for risk reduction?
	To what extant do you think OSHA's role are favorable in enforcing workplace safety standards?
	Do you believe OSHA regulations are effective in preventing all kind of workplace risks?
	To what extant do you believe the guidelines is important for risk reduction?
Subjective Norms	*To what extant your*
	Colleagues believe that employers should follow the acts?
	Supervisors promote you against the acts?
	Availability of collaborative support for risk reduction guidelines?
	Supervisors/colleagues provide resources and support from avoiding workplace risks?
	Colleagues are supportive to follow health and safety standards?
	Supervisors encourage you to follow OSHA's guidelines?
Perceived Behavior Control	To what extant are you confident in your ability to negotiate for acts?
	Do you have access to resources and support for complaining or legal action against acts violations?
	To what extant do you confident in your ability to claim and receive fair compensation under the Act?
	To what extant do you confident in your ability to follow OSHA regulations?
	To what extent it is difficult for you to avoid from workplace place risks?
	To what extant do you have resources and supports to follow OSHA regulations?
Organizational Factors	*To what extent do you agree that the following practices are adopted by your employer for risk reduction?*
	Compliance with protocols that ensure safety in the workplace.

	The adequacy and availability of protective equipment is ensured for employees.	
	Practices conducted frequently particularly in preparation for possible disasters.	
	The training is conducted with an emphasis on health and safety concerns.	
	Organizations are Maintaining cleanliness and hygiene in the workplace	
	Provide first aid in case of incidents.	
	Providing adequate time for recovery from injuries or illnesses.	
Governmental Factors	*To what extent do you agree on the government's role for risk reduction?*	
	Conducts frequent inspections to identify risks and safety concerns.	
	Establish a minimum standard that firms must adhere to in the implementation of safety solutions.	
	Mandate compulsory training sessions to improve employees' abilities and understanding of safety issues.	
	Compel organizations to provide minimum pay and bonuses in accordance with legal regulations.	
	Collaborate to enhance health and safety for risk reduction.	
	Promoting employer compliance with occupational health and safety regulations.	
	Financing safer technology.	
	Content with the overall efficacy of the government.	

Results and Discussion

This section delineates the outcomes of descriptive analysis, the principles of component analysis, and multiple regression.

Reliability and Validity

Variables Name	Items	Alpha's Value
Adoption	6	0.7501
Attitude	6	0.9677
Subjective norms	6	0.9601
Perceived behavior control	6	0.9103
Awareness/knowledge	6	0.9623

Organizational role	7	0.9643
Government role	8	0.947

The study evaluated the reliability and validity of the measures using Cronbach's Alpha values, which reflect the internal consistency of each factor's scale. The results indicate that the Attitude variable exhibits exceptional reliability ($\alpha = 0.9677$), substantially beyond the acceptable threshold of 0.70, which signifies a high degree of consistency among the questions assessing this construct. Likewise, Subjective Norms ($\alpha = 0.9601$) exhibit exceptional reliability, guaranteeing precise measurement. The Perceived behavioral control variable demonstrates robust internal consistency ($\alpha = 0.9103$), signifying that the items accurately represent this construct. The organizational role variable exhibits a commendable Alpha value of 0.9643, indicating that the items consistently reflect the influence of organizational factors on adoption behavior. Moreover, the government factors demonstrate high reliability ($\alpha = 0.9470$), affirming that the items reliably assess the influence of government assistance on adoption. Despite the Adoption variable possessing a lower Alpha value of 0.7501, it still satisfies the acceptable level, signifying accurate measurement, though with possibility of enhancement. The research indicates that the consistency for awareness, subjective norms, attitude, perceived behavioral control, organizational role, and government role exhibit excellent reliability, however the consistency of adoption is low as compare to others variables but acceptable.

Descriptive Statistics

Attitude

Variable	Mean	Std. Dev.
Wage Act provides adequate protection	3.165	1.535
Compensation Act provides adequate protection	3.311	1.453
Provisions act for risk reduction	3.165	1.549
Effectiveness of OSHA regulations	3.127	1.523
Importance of health and safety regulations	3.245	1.505
Importance of provision guideline	3.271	1.553

The descriptive data of attitudes towards employees' actions reveal a moderate degree of their significance and efficacy among the respondents. The average scores for all categories are approximately near the scale's midpoint, indicating that respondents exhibit a degree of uncertainty regarding these problems. The average score for wage acts provision is 3.165, suggesting that respondents acknowledge some significance, however not significantly. The perception that the compensation acts provision has a mean of 3.311, indicating a moderate belief in the protective measures afforded by the acts. Nevertheless, this emotion is tempered, as seen by the low ratings for the effectiveness of OSHA regulation (mean of 3.127) and the importance of Occupational Safety and Health Regulations (mean of 3.245). The mean scores for the Acts Provisions favorable and the combined impression of the importance of provision guideline are 3.165 and 3.271, respectively, indicating a comparable ambivalence. The standard deviations across every factor demonstrate substantial variability in responses, indicating significant differences in individual attitudes. The findings indicate a measured recognition of the significance and efficacy of labor laws and safety rules, suggesting a necessity for more involvement and education to promote a

more favorable perspective towards these essential measures.

Subjective Norms

Variable	Mean	Std. Dev.
Supervisors/colleagues believe follow the acts	3.51	1.517
Promote you against the acts	3.231	1.559
support for the Act's guidelines	3.219	1.635
Provide resources and support	3.215	1.555
Supportive to follow health and safety standards	3.203	1.6
Encourage to follow OSHA's guidelines	3.143	1.584

The statistical analysis for subjective norms provides insights into respondents' perceptions of the impact exerted by their superiors and coworkers over adherence to labor-related regulations. The average ratings for all variables approximate the moderate point of the scale, suggesting a general reluctance or uncertainty regarding the help provided. The assertion concerning the belief of supervisors and colleagues in adhering to the acts had a mean of 3.51, indicating a moderate acknowledgement of support, however not robust. The average response on whether employees feel supported against the activities is 3.231, suggesting insufficient encouragement. The degree of support regarding the acts' rules (mean of 3.219) and resource provision (mean of 3.215) indicates a relatively low degree of perceived support, suggesting that participants do not feel significantly supported in their compliance with these requirements. Furthermore, the mechanisms for endorsing compliance with health and safety requirements (3.203) and promoting adherence to OSHA's instructions (3.143) are minimal, underscoring a significant deficiency in robust support. The elevated standard deviations across all metrics indicate substantial heterogeneity in responses, implying that individual experiences vary markedly. These findings indicate a deficient impression of subjective norms among the employees, highlighting a potential opportunity to enhance the environment of compliance with labor laws and safety requirements.

Perceived Behavior Control

Variable	Mean	Std. Dev.
Confident to negotiate for acts	3.884	1.309
Resources and support against acts violations	4.098	1.142
Confident to claim for rights	3.624	1.432
Confident to follow OSHA guidelines and regulations	3.624	1.432
Difficulty to avoid from risks	3.49	1.508
Resources and support to follow OSHA regulations	3.615	1.489

The descriptive analysis for perceived behavioral control among employees provides an overall optimistic perspective on their capacity to manage work-related challenges, however certain aspects remain concerning. The mean rating for confidence to negotiate for regulations is notably

high at 3.884, indicating that the majority of respondents had a reasonable level of confidence in their capacity to assert their rights under these statutes. The mean score for resources and support against acts violations is 4.098, suggesting that employees recognize a robust availability of resources to assist them in addressing violations, which is a favorable outcome. Nonetheless, regarding the Confidence to Claim Rights and the Confidence to Adhere to OSHA regulations and guidelines, both exhibiting a mean of 3.624, there exists significant uncertainty. This indicates that although certain employees feel empowered, a considerable number may nevertheless experience hesitation or uncertainty regarding their competencies in these domains. The average rating for perceived difficulty to avoid from workplace risk is 3.49, suggesting that respondents encounter moderate obstacles in compliance, potentially affecting their overall confidence? Finally, the average score for resources and support to Adhere to OSHA Regulations is 3.615, indicating a varied assessment of the assistance available for compliance. Despite a robust sense of confidence and felt support among employees about negotiation and the resolution of breaches, substantial areas of uncertainties and perceived challenges underscore the necessity for improved training and resources to further empower employees.

Awareness

Variable	Mean	Std. Dev.
Awareness about workplace risk	3.934	1.345
Payment of Wages Act	4.133	1.184
Workmen's Compensation Act	4.034	1.339
Occupational health and safety regulation	4.135	1.2
Old Age Benefits	4.048	1.257
Social Security Card	4.05	1.233

The descriptive data reveal that respondents predominantly exhibit a lack of awareness regarding numerous labor-related regulations, as evidenced by their mean ratings on a Likert scale, where 1 signifies strongly agree and 5 denotes strongly disagree. The average ratings for all factors approximate 4 or exceed it, indicating that numerous respondents believe they are insufficiently awareness about these regulations. The payment of wages act average score is 4.133, while the occupational safety and health regulation scores 4.135, suggesting that respondents predominantly disagree with their awareness of both requirements. The workplace risk awareness's mean score of 3.934 indicates that although some respondents may possess knowledge, the score remains near 4, signifying a deficiency in robust understanding among many individuals. Comparable patterns are seen for mean of workmen's compensation act, old age benefits and social security card is 4.034, 4.048 and 4.050 respectively. The standard deviations reflect heterogeneity in responses, especially on the factory and workmen's compensation act, indicating that although some individuals may perceive themselves as knowledgeable, a substantial segment does not. The statistics indicate a troubling deficiency in awareness of these significant labor rules, underscoring the necessity for enhanced education and outreach initiatives.

Organizational Factors

Variable	Mean	Std. Dev.
Safety regulation	2.5	1.371
Safety equipment provision	2.428	1.425

Conduct safety drills	2.402	1.403
Training to employees	2.404	1.407
Clean and hygienic	2.464	1.423
First aid provision	2.506	1.334
Compensation with employees	2.468	1.355

The descriptive statistics of organizational factors exposes employees' assessments of safety and organizational practices in their workplace, assessed on a scale where 1 signifies strongly agree with good safety measures and 5 denotes strongly disagree. The mean score of 2.5 for "Safety Regulation" indicates that employees moderately concur with the efficacy of current safety measures. Nonetheless, the safety equipment provision score of 2.428 suggests a moderate consensus over the inadequacy of safety equipment, hence heightening concerns about employee safety. The average of conduct safety drills is 2.402, indicating a perception that safety exercises are insufficiently executed, which is critical for disaster preparedness. The score of 2.404 for training to employees indicates that employees see a deficiency in sufficient training concerning safety standards. Furthermore, clean and hygienic" has an average score of 2.464, signifying modest consensus that cleanliness and hygiene measures are not frequently upheld, which may adversely affect health and morale. The first aid provision score is 2.506, indicating apprehensions regarding the accessibility of first aid facilities during emergencies. Finally, compensation with employees has an average of 2.468, indicating a moderate consensus that remuneration pertaining to safety hazards is insufficient. These findings reveal substantial employee apprehensions about safety practices, highlighting the necessity for organizations to enhance their safety protocols and support mechanisms to guarantee safe working conditions.

Governmental Factors

Variable	Mean	Std. Dev.
Regular inspection	2.171	1.227
Provision Safety standard	2.135	1.258
Provision training	2.608	1.382
Financial incentives	2.643	1.402
Collaboration with organization	2.627	1.446
Improve occupational health and safety	2.635	1.438
Research and development	2.695	1.441
Overall satisfaction	2.604	1.487

The descriptive analysis of governmental factors influences on workplace safety exposes employees' impressions of several regulatory and support initiatives, derived from 498 observations and assessed on a scale where 1 signifies strongly agree with efficient measures and 5 denotes strongly disagree. The average of regular inspection is 2.171, showing that employees predominantly concur that inspections occur regularly, reflecting a degree of confidence in oversight. The provision of safety standards has a mean of 2.135, indicating a high consensus that safety requirements are sufficiently given. Nonetheless, provision of training registers a score of 2.608, signifying a modest consensus that training is accessible although maybe inadequate. The mean score for financial incentives is 2.643, indicating that employees perceive financial incentives for protection enhancements as slightly insufficient. Likewise, collaboration with

organization registers a score of 2.627, reflecting a modest assessment of collaboration between the government and organizations, suggesting a need for improvement. The average score of improve occupational health and safety is 2.635, indicating moderate consensus that initiatives to enhance health and safety are implemented but may lack full efficacy. The research and development mean is 2.695 indicates that employees perceive a moderate adherence to safety practices in research. Ultimately, overall satisfaction mean is 2.604, signifying a prevailing sense of moderate contentment regarding governmental influences on workplace safety. These findings indicate that although employees acknowledge certain favorable characteristics of government regulation and support, substantial adjustments are necessary especially concerning training and incentives to bolster employee health and safety at work.

Principal Component Analysis (PCA) Results

Attitude

Component	Eigenvalue	Proportion	Cumulative
Wage Act provides adequate protection	5.182	0.864	0.864
Compensation Act provides adequate protection	0.22	0.037	0.9
Provisions act for risk reduction	0.173	0.029	0.929
Effectiveness of OSHA regulations	0.165	0.028	0.957
Importance of health and safety regulations	0.148	0.025	0.981
Importance of provision guideline	0.112	0.019	1

The results of PCA regarding attitudes towards labor-related actions elucidate the components affecting workers' perceptions. The research delineates six components, each representing distinct facets of attitudes, with differing degrees of significance. The comp1, provision of wage act's, possesses a substantial eigenvalue of 5.182, representing 86.4% of the overall variance. This suggests that employees regard the regulations of the acts as the primary influence shaping their views, indicating a profound acknowledgement of their significance. The following factors contribute considerably fewer to the total variation. The Adequate Protection component of the Acts accounts for merely 3.7% of the variance, with an eigenvalue of 0.220, indicating that although some workers recognize the protective aspects of the acts, their conviction is not very robust. The provisions of the Act Favorable (2.9%), the effectiveness of OSHA regulations (2.8%), and the significance of health and safety regulations (2.5%) exhibit diminishing returns for their impact on attitudes, with eigenvalues of 0.173, 0.165, and 0.148, respectively. The final comp, importance of Safety and Health guideline, constitutes about 1.9% of the variation, signifying that this factor is the least impactful in influencing overall perceptions. The comp1 only accounts for a significant portion of the variance, whereas the first two factors collectively elucidate 90% of the entire variance. This indicates that the significance attributed to the actions' criteria is the principal factor influencing workers' opinions. These findings emphasize the necessity of strengthening the perceived significance of these recommendations, since improving this awareness could favorably affect employee attitudes towards compliance and safety procedures.

Subjective Norms

Component	Eigenvalue	Proportion	Cumulative
Supervisors/colleagues believe follow the acts	5.031	0.839	0.839
Promote you against the acts	0.546	0.091	0.929
support for the Act's guidelines	0.124	0.021	0.95
Provide resources and support	0.116	0.019	0.97
Supportive to follow health and safety standards	0.103	0.017	0.987
Encourage to follow OSHA's guidelines	0.08	0.013	1

The PCA findings for subjective norms highlight the components affecting employees' views of societal pressures and support about work-related behaviors. The approach delineates six components, each representing distinct facets of subjective standards, with differing levels of relevance. The comp1, supervisors/colleagues believe follow the Acts, possesses a substantial eigenvalue of 5.031, representing 83.9% of the overall variance. This suggests that the convictions of supervisors and coworkers over compliance with the regulations are the primary element influencing workers' attitudes, demonstrating a substantial social impact in this domain. The comp2, promote you against the acts, accounts for 9.1% of the variance, with an eigenvalue of 0.546. This indicates that, although there is some acknowledgement of support against infractions, it is significantly less influential than the convictions of supervisors and coworkers. The following remaining components exert a negligible influence on the total variance: support for the act's guidelines (2.1%), Provision of Resources and Support (1.9%), Adherence to Health and Safety Standards (1.7%), and Promotion of Compliance with OSHA's Guidelines (1.3%). These components suggest that, although pertinent, they exert a significantly lesser influence on the formation of subjective standards. The initial two components collectively account for almost 93% of the variance, highlighting that social perceptions regarding adherence to the actions are the principal factors influencing perceived subjective standards among employees. These findings indicate that cultivating a supportive environment via management and peer influence may substantially improve adherence to labor-related regulations and safety standards.

Perceived Behavior Control

Component	Eigenvalue	Proportion	Cumulative
Confident to negotiate for acts	4.543	0.757	0.757
Resources and support against acts violations	0.908	0.151	0.909
Confident to claim for rights	0.243	0.041	0.949
Confident to follow OSHA guidelines and regulations	0.166	0.028	0.977
Difficulty to avoid from risks	0.14	0.023	1
Resources and support to follow OSHA regulations	0	0	1

The PCA (principal component analysis) findings for perceived behavioral control underscore the primary factors affecting workers' confidence and endorsement of labor-related actions. The approach delineates five components, that each contribute uniquely to the comprehensive comprehension of perceived behavioral control. The very first component, confident to negotiate for acts, possesses an eigenvalue of 4.543, representing a significant 75.7% of the overall variance. This suggests that employees' trust in their capacity to advocate for their protections under the legislation is the primary determinant affecting perceived behavioral control. The second comp,

Resources and Support Against Acts Violations, accounts for 15.1% of the variance, with an eigenvalue of 0.908. This indicates that the accessibility of resources and support is a significant, albeit secondary, element in employees' evaluations of their capacity to address infractions. The residual components account for a somewhat lesser portion of the total variance: Confidence in Claiming Rights (4.1%), Confidence in Adhering to OSHA guidelines and regulations (2.8%), and Difficulty to avoid from workplace risk (2.3%). These diminished contributions suggest that, although pertinent, they exert a significantly lesser influence on the overall perception of behavioral control. The Resources and Support component for adhering to OSHA regulations carries an eigenvalue of 0, signifying it does not influence the variance in perceived behavioral control whatsoever. The initial two components collectively represent 90.9% of the variance, indicating that negotiation confidence and the sense of having sufficient resources are the principal determinants influencing employees' attitudes. These findings indicate that bolstering employees' confidence in negotiating and increasing resource availability could substantially enhance perceived behavioral control regarding labor laws and safety standards.

Awareness

Component	Eigenvalue	Proportion	Cumulative
Awareness about workplace risks	5.175	0.862	0.862
Payment of Wages Act	0.228	0.038	0.9
Workmen’s Compensation Act	0.198	0.033	0.933
Occupational health and safety regulation	0.161	0.027	0.96
Old Age Benefits	0.143	0.024	0.984
Social Security Card	0.096	0.016	1

The results of PCA concerning awareness of employees related regulations provide substantial insights into the determinants affecting workers' understanding of critical regulations. The analysis delineates six components, each representing distinct facets of consciousness, with differing degrees of significance. The first component, Awareness of workplace risk, exhibits a substantial eigenvalue of 5.175, representing 86.2% of the overall variance. This signifies that employees' awareness of the workplace risk is the paramount component affecting overall awareness of labor regulations, indicating a profound acknowledgement of its importance. The following components contribute significantly fewer to the total variation. The Payment of Wages Act contributes 3.8% to the variance, with an eigenvalue of 0.228, suggesting a degree of awareness, however it is far less influential than the Factory Act. The Workmen’s Compensation Act accounts for 3.3% of the variance (eigenvalue of 0.198), while the Workplace Health and Safety Regulation contributes 2.7% (eigenvalue of 0.161), indicating reduced awareness levels relative to the Factory Act. The Old Age Benefits component adds 2.4% to the variation (eigenvalue of 0.143), but the social security card accounts for only 1.6% (eigenvalue of 0.096), suggesting that awareness of these components is limited and exerts minor influence on overall awareness. The initial component alone accounts for a significant portion of the variance, while the first two factors collectively elucidate 90% of the entire variance. This underscores that knowledge of workplace risk is the principal factor influencing workers' overall understanding of labor regulations.

Organizational Roles

Component	Eigenvalue	Proportion	Cumulative
Safety regulation	5.766	0.824	0.824
Provision of Safety equipment	0.305	0.044	0.867
Conducts safety drill	0.246	0.035	0.902
Training to employees	0.193	0.028	0.93
Clean and hygienic condition	0.181	0.026	0.956
Provision of first aid	0.166	0.024	0.98
Compensation with employees	0.142	0.02	1

The PCA findings for organizational safety variables indicate that safety regulation is the predominant factor, representing 82.4% of the total variation, underscoring its essential contribution to improving overall safety inside the organization. This indicates that the successful execution and compliance with safety laws are crucial for enhancing safety outcomes. The provision of safety equipment provides 4.4%, while conducts safety drill" adds 3.5%, underscoring their significance in enhancing workplace safety. Supplementary elements, including "Employee Training," "Clean and Hygienic Conditions," "First Aid Provision," and "Employee Compensation," progressively diminish in their contribution to overall safety perception, with variation proportion of 2.8%, 2.6%, 2.4%, and 2.0%, respectively. The cumulative variance demonstrates that the leading three components account for over 90% of the variance, implying that prioritizing safety rules, equipment provision, and routine drills can substantially enhance workplace safety. The findings underscore the necessity for organizations to prioritize these critical areas to effectively improve safety policies and outcomes.

Governmental Roles

Component	Eigenvalue	Proportion	Cumulative
Regular inspection	5.856	0.732	0.732
Provision of Safety standard	1.027	0.128	0.86
Provision of training	0.231	0.029	0.889
Financial incentives	0.217	0.027	0.916
Collaboration with organization	0.189	0.024	0.94
Improve occupational health and safety	0.18	0.022	0.963
Research and development	0.152	0.019	0.982
Overall satisfaction	0.147	0.018	1

The PCA findings for governmental safety variables reveal that regular inspection is the most critical component, possessing an eigenvalue of 5.856 and accounting for 73.2% of the total variance. This highlights the significance of routine inspections in upholding safety standards and maintaining adherence to regulations. The comp2, provision of safety standards, accounts for 12.8% of the variation, underscoring its significance in creating a framework for safety measures. The provision of training and financial incentives account for 2.9% and 2.7%, respectively, indicating that while both training and financial support are significant, they are less impactful than the primary two components. Collaboration with Organizations, Improve Occupational Health and Safety, and Research and Development contribute lesser percentage of variability, at 2.4%, 2.2%, and 1.9%, respectively. Finally, "Overall Satisfaction" exerts the minimal influence, accounting for about 1.8%. The cumulative variance indicates that the initial two components represent 86% of the variance, suggesting that emphasizing frequently inspections and safety standards can significantly enhance safety governance. The findings indicate that governmental

organizations should prioritize the enhancement of inspection processes and safety standards to boost safety outcomes.

Multiple Regression Results

Name of Variables	Coef.	St.Err.	t-value	p-value
Attitude	0.02	0.033	0.59	0.558
Subjective norms	-0.116***	0.038	-3.06	0.002
Perceived behavior control	-0.377***	0.028	-13.61	0
Awareness	-0.186***	0.036	-5.2	0
Organizational factor	-0.102***	0.036	-2.88	0.004
Government factor	0.218***	0.035	6.2	0
Experience	-0.014***	0.004	-3.81	0
Qualification	0.042***	0.009	4.67	0
R-squared				0.673

**** p<0.01, ** p<.05, * p<0.1*

The regression analysis yields substantial insights into the determinants affecting the adoption of risk reduction practices. The model demonstrates that subjective norms (SN), perceived behavioral control (PBC), awareness (AK), organizational and, government factors, experience, and qualifications are all significant in influencing this adoption except employee's attitude. Attitude (coefficient = 0.02, p-value = 0.558) does not significantly influence on adoption. Whereas subjective norms (coefficient = -0.116, p-value = 0.002) and perceived behavioral control (coefficient = -0.377, p-value = 0.000) significantly negatively affect adoption (Mutyebere et al., 2023), indicating that insufficient supporting social views and a lack of confidence in one's capacity to execute risk reduction methods may impede adoption. Conversely, governmental support (coefficient = 0.218, p-value = 0.000) favorably impacts adoption, suggesting that enhanced support from governments promotes the adoption practices. Awareness (coefficient = -0.186, p-value = 0.000) and organizational factors (coefficient = -0.102, p-value = 0.004) adversely influence adoption, indicating that heightened awareness of risks and organizational dynamics may complicate or hinder adoption. Experience (coefficient = -0.014, p-value = 0.000) correlates with a marginal decline in adoption, however the qualification (coefficient = 0.042, p-value = 0.000) positively associated with an increased adoption of risk-reducing practices. The model accounts for R^2 are 67.3% of the variation in adoption, indicating a strong fit and underscoring the significance of these parameters in facilitating effective risk reduction practices.

Conclusion

The linear regression analysis offers significant insights into the determinants affecting the adoption of risk-reducing. The regression analysis reveals that awareness, subjective norms, perceived behavioral control and organizational factors adversely but significantly influence adoption, which shows the organizational fail to follow the labor act and OSHA regulation and employees have lack of awareness about acts and not properly follow the OSHA compliance. Whereas government factors show significantly and positively effect on adoption. The model accounts for (R^2) 67.3% of the variation in adoption, indicating a strong fit and highlighting the significant influence of these factors on the adoption of efficient practices for reducing risks. The findings underscore the complex nature of adoption behavior, indicating that it is crucial to address both organizational and govt. factors to improve risk reduction practices.

Recommendations

1. Enhance Awareness and knowledge: Formulate specialized training initiatives to elevate workers' understanding of risk mitigation measures and labor regulations. Highlighting the significance of these recommendations can promote favorable attitudes and facilitate adherence.
2. Reinforce supportive subjective norms: Encourage a workplace environment in which managers and coworkers actively endorse and facilitate compliance with risk reduction practices. This may encompass mentoring initiatives and peer-led activities that promote constructive behaviors.
3. Enhance employee empower via behavioral control: Establish initiatives that boost employees perceived behavioral control by equipping them with essential equipment, resources, and training to proficiently manage risks. This may encompass training designed to enhance knowledge and confidence in implementing risk reduction practices.
4. Utilize government support: Promote policies that increase governmental engagement in advancing risk reduction practices. This may encompass financial support for safety initiatives and equipment to aid organizations in executing efficient processes.
5. Evaluate organizational factors: Perform assessments of organizational policies and behaviors that may obstruct the implementation of risk reduction practices. Establishing an environment that emphasizes safety and compliance can foster increased participation in risk mitigation methods.

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