

Role of Healthy and Safe Environment in Employee Retention: Mediating Effect of Employee Commitment

Ghulam Muhammad¹
Summiya Qasim²
Muttahir Ahmed Khan³

Abstract

The purpose of this research is to investigate the relationship between Healthy and Safe Environment (HSE) and employee retention, keeping the mediating effect of employees' commitment. Data for the study was gathered through a close-ended questionnaire, which was filled by 200 employees of four major textile companies in Pakistan. The relationship between variables was tested through Partial Least Square (PLS) modeling by using Smart PLS v3.2.8. The findings of the study revealed that there is a significant relationship between health and safety dimensions and employee commitment, except for one i.e. emergency information. However, employee commitment and

employee retention have a significant negative relationship. The study also found that there is no mediating role of employee commitment between health and safety, and employee retention. This research recommended performing a similar study on a large sample size and in different sectors. Managers must ensure the implementation of approved policies and guidelines regarding health and safety so that this basic requirement of the employees must be fulfilled.

Keywords: *Health and safety environment, Employee retention, Employee commitment. Partial least square, Human Resource Management*

¹ Mohammad Ali Jinnah University, Karachi, Pakistan

² Mohammad Ali Jinnah University, Karachi, Pakistan

³ Mohammad Ali Jinnah University, Karachi, Pakistan

Introduction

Human resource management (HRM) is a significant area in the field of management (Aswathappa, 2016). Organizations should assess and modify the HR practices to meet the current changing pattern (Katiyar and Saini, 2016). Employee Retention is a significant part of HRM. In this manner, "recruiting and selecting the people to meet the organizations' human resource needs is only the first half of the battle in the war for talent; the second half is keeping them" (Schuler & Jackson, 2017). Managing employee retention and keeping turnover rate below the target and industry standards is among the most testing challenges confronting organizations (Papa et al., 2018). Employee retention portrays the methodology and resources utilized for urging employees to remain related to their organizations. This initiative is beneficial for both the organization and its staff (Akila, 2012). Organizations not only apply various measures to retain employees, they also invest significantly to build the aptitudes or capabilities of their workforce (Arnold, 2005).

The textile industry, which exhibits the largest manufacturing activity in Pakistan, and is an organized segment, is known to show poor and even dangerous working conditions. Byssinosis also called "brown lung disease" or "Monday fever", is an occupational lung disease caused by exposure to cotton dust in inadequately ventilated working environments. "Byssinosis" commonly occurs in workers who are employed in yarn and fabric manufacturing industries ('Byssinosis - Pulmonary Disorders', 2000). The study by Nafees et al. (2012) found that there is a high prevalence of various respiratory illnesses and their symptoms in textile employees. Garment factories in Karachi and Lahore caught fire on 11 September 2012. The fires occurred in a textile factory in the western part of Karachi and in a shoemaking factory in Lahore. The fires are considered to be the deadliest and worst industrial factory fires in Pakistan's history, killing 289 people and seriously injuring more than 600 ("Death toll in Pakistani fires hits 314", 2012)."

Companies are concerned about the health of their employees in the workplace because it has become a social and economic problem (Kirsh, Krupa & Luong, 2018). The management of safety and health is one of the most significant challenges for organizations (McLain, 1995). Negative behavior creates health and safety issues in the workplace, which, in turn, impacts employees' health and productivity (De Cieri, Farr-Wharton & Teo, 2017). Pakistan lacks empowering legislation in the area of safety and health, and the foundations to enhance safety and health in the workplace are not at par with the required standards. This research aims to assess the impact of making the workplace environment healthy and safe, and its impact on employee retention. In other words, it assesses to what extent a culture of health and safety decreases employee turnover in an organization. Numerous employee retention strategies are recommended to meet the different needs of employees to improve their activity fulfillment and decrease the considerable costs engaged with recruiting and training new staff (Dechawatanapaisal, 2018). Retention of trained employees has turned out to be incredibly important for the success of a business organization today, particularly in the manufacturing sector where proper and adequate knowledge and expertise are needed to run the day-to-day operations.

However, as per the literature reviewed, the impact of health and safety measures on employee retention has never been analyzed in the Textile sector of Pakistan. This paper intends to fill this research gap while analyzing the mediating effect of employee commitment. Hence, the objectives of this study are to determine the impact of a healthy and safe environment on employee retention and to examine the mediating role of employee commitment between a healthy and safe environment and employee retention. This research has been carried out on employees working in the Pakistan textile sector.

Applicability and Generalizability

With employees' health and safety becoming increasingly important, this research, in turn, attains a similar level of importance. It is an essential issue and will bring forth adequate health and safety measures for protecting employees in organizations locally and globally (Almost et al., 2018). This research is significant for both employees as well as the management to increase commitment and retention in the organizations by creating a healthier and safer workplace environment. The research will be helpful to design innovative and effective policies to protect employees from health hazards and keep them safe. Emerging economies and developed countries can become more efficient and effective by working on health and safety measures. Health and Safety have always remained ignored in emerging economies because of competing economic, political, and social issues. This research will be helpful for policymakers and managements to design and implement proper health and safety policies to protect employees in developing countries. Even developed countries do not have health and safety policies that meet the current need of adequate protection of employees. Fox & McCorkle emphasize on the innovation of healthcare delivery in developed countries (Fox & McCorkle, 2018). Developed countries can use the findings of this research to improve the health and safety policies to meet the current and future needs. The data is collected from major national and international textile companies having their manufacturing units in Pakistan. The companies export their products to other emerging and developed economies in the world. The findings from the collected data can be useful for emerging and developed economies.

Hypotheses Development

Health and Safety are the greatest concerns of organizations. Researchers and practitioners have been trying to increase the performance of health and safety in the organizations through technology and managerial approaches (Niu, Lu, Xue, Liu, Chen, Fang, & Anumba, 2019). Traditional tools are effective and

sufficiently supported to achieve employees' health and safety whereas technology supports its effectiveness (Gao, Gonzalez, & Yiu, 2019). Da Silva & Amaral (2019) said that excellence of employees' health and safety depend on the models that allow proactive prevention measures against health hazards and accidents. Ahmad & Nawaz (2015) express that "health and safety in an association refer to a condition of complete physical, mental, social, and financial prosperity of an employee who is free from ailments and wounds coming about because of various kinds of organizational hazards. Industries, particularly in developing nations, are dim, dusty, hot, slippery, and noisy. Individual protective equipment is not utilized. Employee retention has been viewed as "a commitment to keep on working together or to be engaged with a specific organization on a continuous basis" (Aguenza & Som, 2018). Protection interventions can be the source for the improvement of safety and health of employees in organizations (Bronkhorst, Tummers & Steijn, 2018). Studies have likewise shown that retention is driven by a few key components, which should be overseen harmoniously: organizational culture, correspondence, procedure, pay and advantages, adaptable work timetable, and healthy working environment (Khadka, 2018)."

Aguenza & Som (2018) found that the motivational components that are pivotal in impacting employee retention are money related prizes, acknowledgment, work quality, vocation advancement, and workplace safety. Salman et al. (2016) affirm that employee retention is significantly affected by the safety and health conditions for the Pharmaceutical sector of Pakistan. Majid (2014) found that employee health and safety have an association with employee retention for the education sector of Pakistan. Umer & Naseem (2011) examine the effect of factors (work-life balance, career development, supervisor support, and work environment) on employee retention. The outcomes found that the work environment and employee retention are significant. Akila (2012) uncovered that the variables that affected employee

retention were career growth, working conditions, and acknowledgment at BGR Energy. Ramlall (2003) found that individuals tend to remain in those organizations that give a great and positive work environment. Amponsah-Tawiah et. al. (2016) found that the physical workplace assumes a critical job in the worker's choice whether to leave the firm or to remain, and is considered as a major point in employees' retention. Muhoho (2014) evaluated the elements affecting employee retention in Tanzania's public and private division working environments. The high level of employee commitment can be beneficial to retain employees (Mathieu & Zajac, 1990). An organization's physical environment has a significant impact on employee commitment (Mohr, 1996). This improves the level of employee commitment in the organization. The study of Joarder et. al. (2011) concluded that commitment plays a mediating role between HR practices and turnover intentions. The investigation uncovered that low pay rates were the only fundamental explanation behind worker turnover. Based on the above review, the following hypothesis is developed.

H1: Employee Commitment Mediates between healthy and safe environment dimensions and Employee retention.

Ritchei and McEwen (2016) found that a large portion of respondents felt more committed to the workplace when a safe and healthy work environment was provided. Ushei & Agba (2015) observed that workplace safety is connected with employees' commitment, and thus performance. Onukwue (2016) affirms that if an employee is not assured of a great workplace and given all the fundamental confirmations and motivating forces to persuade him, he will continue living in fear and will be unsatisfied. Ribelin (2003) found that poor workplace prompts diminished employee execution, non-attendance, turnover, early retirement, and disappointment. Al-Hussami (2016) examined the relationship of workplace conditions with employee commitment in the four nursing homes situated in Miami-Dade

County. Findings uncovered that there exists a positive relationship between the workplace environment and the commitment of employees. Subsequently, employees are more committed towards their organization (Saini, Pandey, Singh and Kalyanaram, 2018). The above discussions give basis for the following hypothesis:

H2: There is a significant relationship between Health & Safety dimensions and Employee commitment

Commitment is an attachment of employees with the organization. Employees share the organizational values, have a desire to remain with the organization, and put more effort to improve the organization. Thus, employee commitment is based upon the degree of an employee's participation in the organizational activities. Employee commitment is an acknowledgment of the organizational qualities and objectives with the hope to work hard for the organization and to remain in the firm (Allen and Meyer, 1990; Huselid and Day, 1991). Greater participation of employees in the organization results in a higher chance to accomplish objectives and achieve targets of the firm.

Ahmed & Nawaz (2015) analyzed the influence of employee commitment on employee turnover among the personnel of Pakistan International Airlines Corporation Limited (PIACL). As per findings, employee commitment is statistically significant and adversely related to employee turnover. Bonds (2017) examined the connection between employees' commitment to their organization and their turnover intentions. The target population consisted of people with two or more years of call center experience in the USA. These results could contribute to positive social modification by serving leaders to better understand the connection between employees' commitment and turnover intentions. Bhatti et al. (2016) found the impact of employee commitment on turnover intention in the banking sector of Pakistan. A questionnaire was filled by 200 employees of different branches of banks in Faisalabad. Results of the applied

model indicated that employee commitment has a significant negative relationship with employee turnover and a significant positive relationship with job satisfaction. Anitha (2016) found that commitment does not have a significant impact on employee retention. This discussion leads to the following hypothesis:

H3: There is a significant relationship between employee commitment (EC) and Employee retention (ER).

Research Framework

The main aim of the current study is to explore the mediating effect of employee commitment in an organization with employee health and safety and employee retention. The data is collected from the Textile Industry of Pakistan for empirical analysis. First, the research framework is considered to analyze the association of health and safety dimensions i.e. work environment (WE), fire protection (FP), emergency exit (EE), and emergency information (EI) with employee commitment. Second, it includes an association between employee commitment (EC) and employee retention (ER). Third, it sheds light on the relationship between health and safety dimensions and employee retention, keeping the mediating effect of employee commitment.

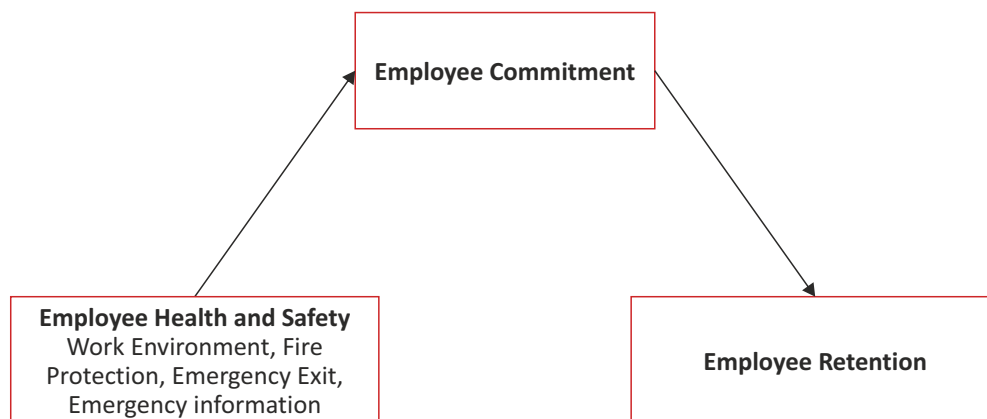


Figure 1: Research Framework

Research Methodology

This research is based on a deductive approach because it includes quantitative data collection and moves from theory to data analysis that defines the causal relationship between variables. This research is based on a cross-sectional survey design i.e. data gathered from the chosen audience at once. This examination is additionally founded on a mono method study i.e. it uses only one type of method i.e. quantitative method. The study used a non-probability convenient sampling method to choose the organizations and respondents for the study.

Participants in this study were 200 employees ranging from officers and executives level of four (4) major textile companies in Karachi, Pakistan. Data for this study was gathered through a standardized close-ended questionnaire used by different researchers (Saini, Pandey, Singh and Kalyanaram, 2018; Harilala and Santhosh, 2017). The survey had a total of 24 questions to assess organizational health and safety environment, employee retention, and employee commitment. Dessler's (2013) self-inspection health and safety checklist was used to measure the dimensions of health and safety. To measure employee

retention (ER) and employee commitment (EC), questions have been adopted from the study of Sanchez et al. (2014). Respondents were rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

This research has ensured that the assumptions about normality, linearity, and multi-collinearity exist in the data before carrying out the main analysis. Upon positive results of these tests, we have applied the partial least squares path modeling approach with Smart PLS v3.2.8 (Ringle, Wende, & Will, 2005). Relating to the model authentication and valuation, this research has adopted a two-stage process which includes an assessment of the measurement model and assessment of structural model (Hair et al., 2016). Measurement “of model assessment includes individual item reliability through outer loadings (Hair et al., 2016), internal consistency reliability through composite reliability and Cronbach's Alpha coefficient (Bagozzi & Yi, 1988), convergent validity through average variance extracted (AVE) scores (Chin, 1998) and discriminant validity through Fornell and Larcker (1981) criterion.”

The assertion of the measurement model takes the investigation to the next step of Partial Least Square (PLS) modeling in which the operational model is assessed. This study has built a relationship of both direct and mediating effects. The quality of the built models has been assessed through Effect size (f^2) (Chin, 1998), Predictive Relevance (Q^2) by utilizing Stone–Geisser's test (Duarte and Ruposo, 2010) and Coefficient of Determination (Chin, 1988).

Results and Findings

Outer loadings of individual construct assessed the individual item reliability. Authors suggest that variables with outer loadings of 0.70 or above are to be considered more consistent (Hair et al., 2014). As a result, 2 items were deleted out of the total items. The retained 22 items concluded with loadings between 0.700 and 0.908 mentioned in Table 1.

In order to analyze the internal consistency reliability of the variables, Composite Reliability (CR) and Cronbach's Alpha coefficient were assessed. Bagozzi & Yi (1988) suggested that Composite Reliability (CR) and Cronbach's Alpha coefficient should not be less than 0.70. The study has achieved internal consistency, as Composite Reliability and Cronbach's Alpha for all items mentioned in Table 1 fall between 0.822 - 0.880 and 0.714–0.798 respectively.

Average Variance Extracted (AVE) scores were computed to check convergent validity. Chin (1998) recommended that the value of AVE of the construct should value 0.50 or above. Table 1 outlines that each of the construct's AVE has adequately achieved the recommended threshold by falling between 0.548 and 0.710.

Table 1: Results of Loadings, Composite Reliability (CR), Average Variance Extracted (AVE) and Cronbach's Alpha

Items	Loadings	AVE	CR	Cronbach's Alpha
EE_1	0.770	0.548	0.829	0.728
EE_2	0.774			
EE_3	0.708			
EE_4	0.705			
EI_1	0.751	0.624	0.869	0.798
EI_2	0.764			
EI_3	0.802			
EI_4	0.840			
FP_1	0.798	0.549	0.829	0.727
FP_2	0.700			
FP_3	0.754			
FP_4	0.708			
WE_1	0.798	0.710	0.880	0.796
WE_2	0.873			
WE_4	0.854			
ER_2	0.815	0.651	0.847	0.742
ER_3	0.792			
ER_4	0.908			
EC_1	0.812	0.565	0.822	0.714
EC_2	0.870			
EC_3	0.874			
EC_4	0.782			

Source: Author's own construction

Fornell and Larcker's (1981) criterion was utilized to determine the discriminant validity. Hair (2014) recommended that the square-root of Average Variance Extracted (AVE) has to be more than the collinearities of other constructs. Results for the

discriminant validity in Table 2 show that the square root of AVE values of all the latent constructs are found to be greater than its correlational value. This supports the requirement of discriminant validity.

Table 2: Results of Discriminant Validity (DV) through Fornell-Larcker Criterion

	EC	EE	EI	ER	FP	WE	DV Decision
EC	0.752						"Supported"
EE	0.502	0.740					"Supported"
EI	0.500	0.663	0.790				"Supported"
ER	(0.233)	0.034	(0.049)	0.807			"Supported"
FP	0.543	0.636	0.737	(0.098)	0.741		"Supported"
WE	0.325	0.305	0.373	0.024	0.299	0.842	"Supported"

Source: Author's own construction

Results of the direct effect path analysis in Table 3 show that the health and safety factors i.e. Work Environment (WE), Fire Protection (FP), and Emergency Exit (EE) have a significant relationship with employee commitment as their p-value is less than 0.05 and t-value greater than 1.96, except Emergency Information (EI). Whereas, Employee

commitment and employee retention have a negative significant relationship. Results of the mediating effect of employee commitment (EC) between health and safety factors and employee retention were found to be not significant as p-values are greater than 0.05 and t-values are less than 1.96.

Table 2: Results of Discriminant Validity (DV) through Fornell-Larcker Criterion

Relationship	Coefficient	T Statistics	P-value	Significance
Direct Effect				
EE -> EC	0.209	2.671	0.008	"Significant"
EI -> EC	0.082	0.835	0.404	"Not Significant"
FP -> EC	0.308	3.264	0.001	"Significant"
WE -> EC	0.139	2.487	0.013	"Significant"
EC -> ER	-0.233	2.085	0.036	Significant
Mediation Effect				
EE -> EC -> ER	-0.049	1.670	0.095	Not Significant
EI -> EC -> ER	-0.019	0.691	0.490	Not Significant
FP -> EC -> ER	-0.072	1.661	0.097	Not Significant
WE -> EC -> ER	-0.032	1.516	0.130	Not Significant

Source: Authors' own construction

Effect size (f^2) determines the strength of each predictor variable in explaining endogenous variables. Results of Table 4 indicate that among all variables, Employee Commitment (EC) and Emergency Exit (EE) have medium effect size i.e. these variables have

average predictive power. Whereas, Fire Protection (FP) and Work Environment (WE) have small effect size i.e. low predictive power. While variable emergency exit (EI) has no effect size i.e. no predictive power.

Table 4: Results of Effect size

Variables	f2	Result
EC	0.057	"Medium effect size"
EE	0.035	"Medium effect size"
EI	0.004	No effect size
FP	0.062	"Small effect size"
WE	0.026	Small effect size

Source: Authors' construction

Results of the predictive relevance test in Table 5 have shown Q^2 of 0.19 for direct and 0.03 for the mediated model, thus suggesting sufficient predictive relevance.

Table 5: Results of Predictive Relevance (Q^2)

Effect	SSO	SSE	Q^2	Result
Mediation Effect	704	572.6932	0.19	Predictive Relevance Exist
Direct Effect	528	514.0797	0.03	Predictive Relevance Exist

Source: Authors' construction

Chin (1988) suggested that R^2 more than 0.67 is considered High, while values between 0.33 and 0.67 are moderate, while values below 0.33 are weak. Results in Table 6 show that all the health and safety factors are able to explain only 4.87% variation in the dependent variable (ER) and 34% variation in the mediating variable.

Table 6: Results of Coefficient of Determination (R^2)

Variable	R Square	R Square Adjusted	Result
EC	35.9%	34.4%	Moderate
ER	5.41%	4.87%	Weak

Source: Authors' own construction

Discussion

The result of this study shows that health and safety factors have a positive relationship with employee commitment except for Emergency Information (EI) which indicates that health and safety factors play a significant positive role in building commitment in employees of textile companies of Pakistan. Only one dimension of health and safety - emergency information - has no relationship. Similar findings were revealed by Ritchei and McEwen (2016) and Ushei & Agba (2015). Results of the mediating effect of Employee Commitment (EC) between health and safety factors and employee retention were found not significant. Employee commitment doesn't mediate the relationship between health and safety measures and employee retention in textile companies of Pakistan. Employees of the textile industry think that employee health and safety improve employee commitment, but it cannot improve retention through commitment. Results also show that employee

commitment has a negative relationship with employee turnover. This indicates that committed employees will not leave the organization. Results match with the studies of Ahmed & Nawaz (2015), Bonds (2017) and Bhatti et al. (2016). They suggested that employee commitment increases retention ratio and reduces turnover in the organization.

Managerial Implications

Health and safety factors show a significant relationship with employee commitment. HR managers of textile companies are being advised to focus on health and safety factors for the improvement of employee commitment. Specifically, the Work Environment (WE), Fire Protection (FP), Emergency Exit (EE) should be focused on to improve employee commitment. HR managers should lay emphasis on proper health and safety policies, guidelines, and implementation. In this policy-making, HR managers should work together with health and safety

professionals in order to involve experts' opinions. It is also advised that proper timely assessment of the company's health and safety conditions and services should be monitored, and concerns of the employees should also be addressed periodically through questionnaires and other methods. Effective leadership is also necessary to design and implement health and safety policies for employee participation and improving organizational health and safety programs (Pfeffer, 2018; Mullen, Fiset and Rhéaume, 2018). The implementation process is necessary and should not be overlooked in order to benefit from the policies (Bronkhorst, Tummers & Steijn, 2018). Management must take an interest in designing and implementing effective and innovative health and safety policies.

Conclusion

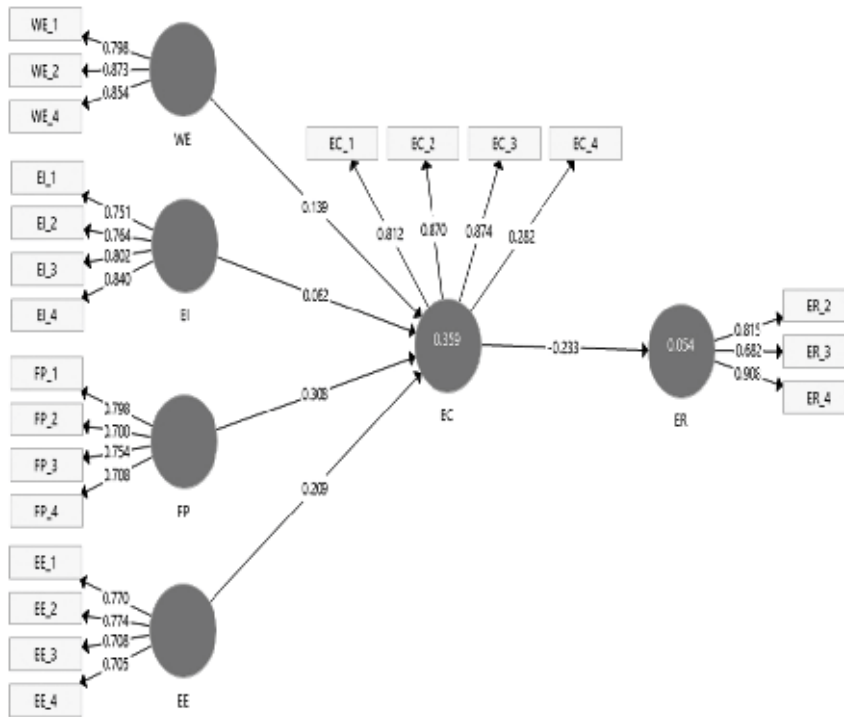
The aim of this research is to examine the mediating role of employee commitment between organizational health and safety dimensions and employee retention. This study found that employee commitment does not mediate between organizational health and safety dimensions and employee retention. Organizational health and safety dimensions, specifically Work Environment, Fire Protection, Emergency Exit have a significant impact on employee commitment. However, Emergency Information does not have a significant impact on employee commitment. This study also found a

significant relationship between employee commitment and employee retention. Management should focus on improving organizational health and safety conditions for the betterment of employees and their commitment to the organization.

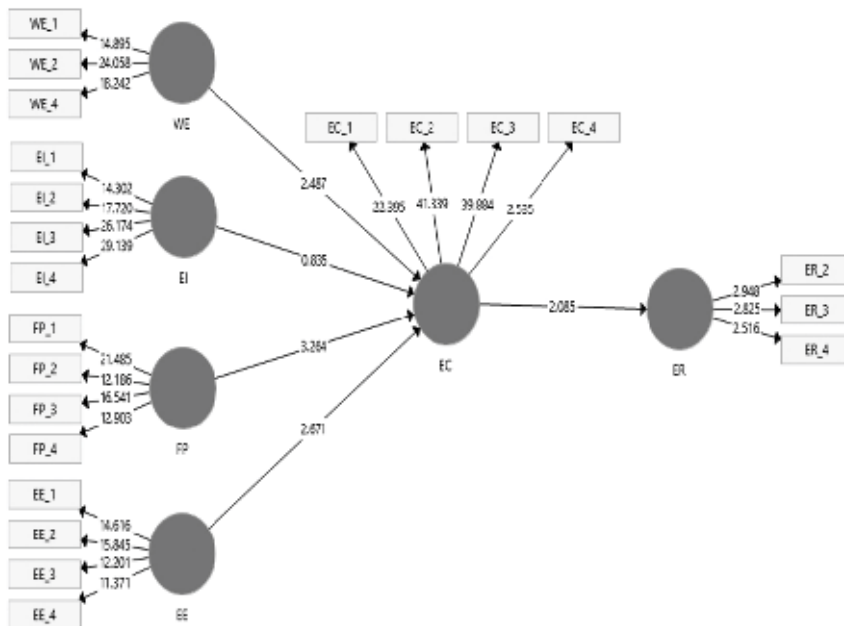
Limitations & directions for future research

Every study has certain limitations and, in our case, we have focused only on employees of the Textile industry of Pakistan. Second, the data gathered is cross-sectional, which implies that the information cannot indicate whether or not the present perception of textile industry employees in Pakistan will remain the same in the following years. Third, data has been taken from limited textile companies operating in Karachi, Pakistan. For future studies, the researcher suggests an enlargement of the sample size to give way to a possible generalization of findings. This study can be extended to a comparative examination of private and public companies as well. This study consists of a limited number of specific variables; there are many other variables, which can affect this study. Other researchers could study all other variables for further research. Future research studies could be extended to other industries. This study found that employee commitment does not mediate between organizational health and safety dimensions and employee retention. Future studies can be done to confirm it further.

Appendix A



Appendix B



References

- Aguenza, B. B., & Som, A. P. M. (2018). Motivational Factors of Employee Retention and Engagement in Organizations. *IJAME*. Retrieved from <http://managementjournal.info/index.php/IJAME/article/view/233>
- Ahmed, M., & Nawaz, N. (2015). Impact of organizational commitment on employee turnover: A case study of Pakistan International Airlines (PIA). *Industrial Engineering Letters Journal*, 5(8), 57-69
- Akila, R. (2012). A Study on employee retention among executives at BGR Energy Systems Ltd, Chennai. *International Journal of Marketing, Financial Services & Management Research*, 1(9), 18–32.
- AL-Hussami, M. (2016). A Study of Nurses' Job Satisfaction: The Relationship to Organizational Commitment, Perceived Organizational Support, Transactional Leadership, Transformational Leadership, and Level of Education. *European Journal of Scientific Research*, 22(2), 286-295.
- Allen, N. J., & Meyer, J. P. (1990). Organizational socialization tactics: A longitudinal analysis of links to newcomers' commitment and role orientation. *Academy of Management Journal*, 33(4), 847-858.
- Almost, J. M., VanDenKerkhof, E. G., Strahlendorf, P., Tett, L. C., Noonan, J., Hayes, T., McDonald, M. (2018). A study of leading indicators for occupational health and safety management systems in healthcare. *BMC Health Services Research*, 18(1), 296. Retrieved from <https://bmchealthservres.biomedcentral.com/track/pdf/10.1186/s12913-018-3103-0>
- Amponsah-Tawiah, K., Ntow, M. A. O., & Mensah, J. (2016). Occupational Health and Safety Management and Turnover Intention in the Ghanaian Mining Sector. *Safety and Health at Work*, 7(1), 12–17. <https://doi.org/10.1016/j.shaw.2015.08.002>
- Anitha, J. (2016). Role of Organisational Culture and Employee Commitment in Employee Retention. *ASBM Journal of Management*, 9(1), 17-28.
- Arnold, E. (2005). Managing human resources to improve employee retention. *The Health Care Manager*, 24(2), 132–140.
- Aswathappa, K. (2016). *Human Resource and Personnel Management*. Tata McGraw-Hill Education.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- Bhatti, M., Akram, U., Bilal, M., & Akram, Z. (2016). Impact of Organization Commitment on Turnover Intention: Mediating Role of Job Contentment. *European Journal of Business and Management*, 8(13), 24-39.
- Bonds, A. A. (2017). *Employees' Organizational Commitment and Turnover Intentions*. Walden University (Ph.D. Dissertation). Retrieved from <http://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=5086&context=dissertations>
- Bronkhorst, B., Tummers, L., & Steijn, B. (2018). Improving safety climate and behavior through a multifaceted intervention: Results from a field experiment. *Safety Science*, 103, 293-304.
- Byssinosis - Pulmonary Disorders. (2000). Retrieved 31 May 2019, from Merck Manuals Professional Edition website: <https://www.merckmanuals.com/professional/pulmonary-disorders/environmental-pulmonary-diseases/byssinosis>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295–336.
- da Silva, S. L. C., & Amaral, F. G. (2019). Critical factors of success and barriers to the implementation of occupational health and safety management systems: A systematic review of literature. *Safety Science*, 117, 123-132.

- Death toll in Pakistani fires hits 314. (2012). Retrieved 31 May 2019, from The Irish Times website: <https://www.irishtimes.com/news/death-toll-in-pakistani-fires-hits-314-1.736233>
- Dechawatanapaisal, D. (2018). Employee retention: the effects of internal branding and brand attitudes in sales organizations. *Personnel Review*, 47(3), 675–693.
- Cieri, H., Farr-Wharton, S.T.B. & Teo, S.(2017). Antecedents and Consequences of Workplace Safety in the Public Sector, Academy of Management Proceedings, 2017(1). doi: org/10.5465/AMBPP.2017.10212symposium
- Dessler, G. (2013). *Human Resource Management* (13th ed.). Pearson Education Inc.
- Duarte, P., & Raposo, M. (2010). A PLS model to study brand preference: An application to the mobile phone market. In V. Esposito Vinzi, W. W. Chin, J. Henseler and H. Wang (Eds.). *Handbook of Partial Least Squares* (pp. 449-485). Springer Berlin, Heidelberg.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Fox, K., & McCorkle, R. (2018). An employee-centered care model responds to the triple aim: improving employee health. *Workplace Health & Safety*, 66(8), 373-383
- Gao, Y., Gonzalez, V. A., & Yiu, T. W. (2019). The effectiveness of traditional tools and computer-aided technologies for health and safety training in the construction sector: A systematic review. *Computers & Education*, 138, 101-115.
- Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106–121.
- Harilal, A., & Santosh, V. A. (2017). A comparative study on stress levels among working women and housewives with reference to the state of Kerala. *NMIMS Journal of Economics and Public Policy*, 2(1), 29-35.
- Hair, J., Joe F., Sarstedt, M., Matthews, L. M., & Ringle, C. M. (2016). Identifying and treating unobserved heterogeneity with FIMIX-PLS: part I—method. *European Business Review*, 28(1), 63–76.
- Huselid, M. A., & Day, N. E. (1991). Organizational commitment, job involvement, and turnover: A substantive and methodological analysis. *Journal of Applied Psychology*, 76(3), 380-391
- Joarder, M. H., Sharif, M. Y., & Ahmmed, K. (2011). Mediating Role of Affective Commitment in HRM Practices and Turnover Intention Relationship: A Study in a Developing Context. *Business & Economics Research Journal*, 2(4), 135-158.
- Katiyar, V., & Saini, G. K. (2016). Impact of social media activities on employer brand equity and intention to apply. *NMIMS Management Review*, 28(1), 11-31.
- Khadka, S. (2018). *Employee Retention in Banking Industry of Nepal*. Singhania University (Ph.D. Dissertation). Retrieved from <http://202.45.147.21:8080/jspui/bitstream/123456789/290/1/55.Dr.Sherjung%20Khadka.pdf>
- Kirsh, B., Krupa, T., & Luong, D. (2018). How do supervisors perceive and manage employee mental health issues in their workplaces? *Work*, 59(4), 547-555.
- Majid, A. (2014). *The impact of Safety & Health on Employee`s Retention*. *Management and Administrative Sciences Review*, 3(6). 960-967.
- Mathes, E. W. (1981). Maslow's hierarchy of needs as a guide for living. *Journal of Humanistic Psychology*, 21(4), 69–72.

- Mclain, D. L. (1995). Responses to health and safety risk in the work environment. *Academy of Management Journal*, 38(6), 1726-1743.
- Mohr, R. (1996). Office Space is a Revenue Enhancer, Not an Expense. *National Real Estate Investor*, 38(7), 46-47.
- Muhoho, J. M. (2014). Assessment of factors influencing employee retention in Tanzania's work organisations. *International Journal of Innovation and Applied Studies*, 9(2), 687-697.
- Mullen, J., Fiset, J., & Rhéaume, A. (2018). Destructive forms of leadership: The effects of abusive supervision and incivility on employee health and safety, *Leadership & Organization Development Journal*, <https://doi.org/10.1108/LODJ-06-2018-0203>.
- Nafees, A. A., Fatmi, Z., Kadir, M. M., & Sathiakumar, N. (2013). Pattern and predictors for respiratory illnesses and symptoms and lung function among textile workers in Karachi, Pakistan. *Occupational and Environmental Medicine*, 70(2), 99-107.
- Niu, Y., Lu, W., Xue, F., Liu, D., Chen, K., Fang, D., & Anumba, C. (2019). Towards the “third wave”: An SCO-enabled occupational health and safety management system for construction. *Safety Science*, 111, 213-223.
- Onukwue, F. O. (2016). *Exploring Global Investors' Beliefs on the Relations Between Global Macro Factors and Global Gross Domestic Product*. Northcentral University.
- Papa, A., Dezi, L., Gregori, G. L., Mueller, J., & Miglietta, N. (2018). Improving innovation performance through knowledge acquisition: the moderating role of employee retention and human resource management practices. *Journal of Knowledge Management*. Retrieved from https://iris.unito.it/retrieve/handle/2318/1662413/396495/PDF_Proof_JKM.pdf
- Pfeffer, J. (2018). *Dying for a Paycheck: How Modern Management Harms Employee Health And Company Performance-and What we Can do About it*, Harper-Collins Publishers, New York, NY.
- Ramlall, S. (2003). Organizational application managing employee retention as a strategy for increasing organizational competitiveness. *Applied HRM Research*, 8(2), 63–72.
- Ribelin, P. J. (2003). Retention reflects leadership style. *Nursing Management*, 34(8), 18–19.
- Ritchie, K. A., & McEwen, J. (2016). Employee perceptions of workplace health and safety issues. Can a questionnaire contribute to health needs assessment? *Occupational Medicine*, 44(2), 77–82. <https://doi.org/10.1093/occmed/44.2.77>
- Saini, G. K., Pandey, S. K., Singh, A., & Kalyanaram, G. (2018). Role of empathy and customer orientation in job satisfaction and organizational commitment. *NMIMS Management Review*, 36(2), 10-25.
- Salman, S., Aftab, F., & Mahmood, A. (2016). Impact of Safety Health Environment on Employee Retention In Pharmaceutical Industry: Mediating Role of Job Satisfaction and Motivation. *Journal of Business Studies*, 12(1), 185-197.
- Sanchez, Á., Saorin, M. C., & Willoughby, M. (2014). Internal Employability as a Strategy for Key Employee Retention. *Innovar*, 24(53), 7–22. <https://doi.org/10.15446/innovar.v24n53.43771>
- Schuler, R. S., & Jackson, S. E. (2017). *Human Resource Management: International Perspectives*. Thomson South-Western.
- Umer, M., & Naseem, M. A. (2011). Employees Retention (Human Capital) in Business Process Outsourcing (BPO) Industry in Pakistan. *Global Journal of Management And Business Research*, 11(3), 91-98.
- Ushie, E. M., Agba, A. M. O., & Okorie, C. (2015). Work Environment and Employees' Commitment in Agro-Based Industries in Cross River State, Nigeria. *Global Journal of Human-Social Science: Sociology & Culture*, 15(6), 1-8.

Ghulam Muhammad has more than 14 years of experience in research, training, teaching, and HR. He has submitted his Ph.D. thesis for evaluation. He is a Gold Medalist in MS. He won 2 research grants from the Higher Education Commission of Pakistan. He has visited 6 countries - Saudi Arabia, Turkey, Spain, France, Switzerland, and Italy. He has written a book. He has presented or published 34 research papers in national & international journals, conferences, and newspapers. He organized 4 national and international conferences. He has worked as a Director Business Research Center and as a Head of HR. He has been involved in social work since 2004. Currently, he is an Assistant Professor at Mohammad Ali Jinnah University, Karachi. He can be reached at gm@jinnah.edu

Summiya Qasim has more than 5 years of experience in corporate and industrial sectors with practical understanding of business needs. She is highly organized and dedicated HR Generalist with a proven ability to improve working environments and a commitment to employee welfare. She possesses strong interpersonal skills and with integrity when dealing with confidential information. She is efficient in dealing with labor and is well aware of employment laws. She has strong expertise of payroll management of labor and office employees. She enjoys overcoming challenges and has genuine interest in making organizations successful. She is eager to learn new practices and diverse work culture environment. She can be reached at summiyaqasim@ymail.com

Muthahir Ahmed Khan is a Pakistan-based Educationist, Author, Journalist, Analyst, TV Host. Besides possessing an M.Phil. (Social Sciences-English), M.S. (Management Sciences), Master's degrees in English Literature, International Relations and Education, he has professional diplomas and certificates in Computers, Business English, Business Communication and Teaching fields. He is a Certified Hypnotherapist, Reiki Healer, Kundalini Practitioner and a Mind Sciences Graduate. His popular books are "The Lighthouse", "The Spectrum" and "An Exercise in Thought". He has achieved Excellence Award (2014) for Best Columnist, Special Youth Journalism Award (2013) and Corporate Ambassador Award (2012) for Best Social Writer and other shields and prizes for his distinctive multi-talented contribution. He can be reached at muttahir.ahmed@jinnah.edu